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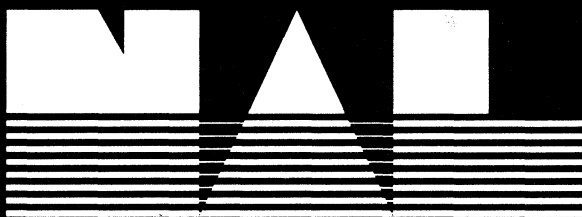


*The
International
Age*

IN AGRICULTURE

U. S. DEPARTMENT OF AGRICULTURE - GRADUATE SCHOOL

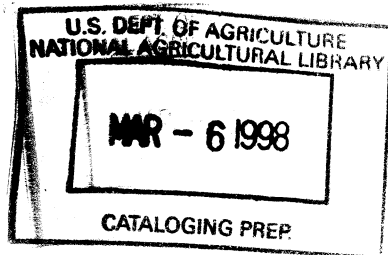
**United States
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The International Age

IN AGRICULTURE



UNITED STATES DEPARTMENT OF AGRICULTURE - GRADUATE SCHOOL

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GRADUATE SCHOOL

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FOREWORD

As we move through this international age in agriculture, it is appropriate for the USDA Graduate School to offer a lecture series on the topic. In our search for truth, knowledge, and understanding, the public platform and the seminars are at least two methods through which we can enunciate ideas, appraise past programs, and look with vision to the future.

The current age is demanding more and more time of agricultural specialists to assist visitors from other countries. More of our agricultural people are working throughout the world. It was the consensus that we should take a look at relationships of United States agriculture to world peace, technical assistance programs, world agricultural markets; take a look at what we are doing, why, where; and perhaps project ourselves toward the ideal relationship of being a helper, a provider of agricultural know-how for all those countries that seek our help.

The lecture series was well attended, and much interest was shown by the press, the specialized agencies, and the general public. In addition to the public lectures, there were four seminars, which followed the last four lectures. The papers have been edited somewhat since presentation, but with the assistance of the speakers.

The first lecture set the stage. It was an over-view and a clear enunciation of a much talked about but somewhat vague idea of "food for peace." The seminars provided an opportunity for the presentation of other viewpoints, exchange of ideas, and a synthesis of important developments. The seminars followed the main lectures and each seminar consisted of 50 invitees, approximately 25 within the Department and 25 outside Government or outside the Department. The lectures and seminars brought together information that is not readily available in any one place. Further they provided a testing point for past and present practices. They helped us to think about the total role agriculture is playing in world events and also helped us to gain perception as to its contributions to the peace of the world.

We have had so many inquiries about the lecture series that it was decided to publish the lectures and a concise summary of the seminar discussions. This lecture series would not have been possible had it not been for the wonderful cooperation by so many people within and outside the Department of Agriculture. It was a source of great satisfaction to have everyone respond so readily to the many requests that made this undertaking a pleasant, profitable, and satisfying activity for the Graduate School.

John B. Holden
Director, Graduate School

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Planning, selection of topics, and choice of speakers were the responsibility of the lecture committee headed by Clarence L. Miller, Assistant Secretary, U. S. Department of Agriculture. Other members of the committee were: Emerson M. Brooks, Agricultural Marketing Service; Gustave Burmeister, Foreign Agricultural Service; C. M. Ferguson, Federal Extension Service; Cannon C. Hearne, Foreign Agricultural Service; G. E. Hilbert, Agricultural Research Service; Max Myers, Foreign Agricultural Service; Clarence D. Palmby, Commodity Stabilization Service; Byron T. Shaw, Agricultural Research Service; R. Lyle Webster, Office of Information; and Oris V. Wells, Agricultural Marketing Service—all from the U.S. Department of Agriculture. Other members were William E. F. Conrad, Department of State, Wessels S. Middaugh, International Cooperation Administration, and Harold A. Vogel, United Nations Food and Agriculture Organization.

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Mr. White developed the art work, including the design of the program for the lectures and the format for this publication.

Mr. Perlmutter edited the entire publication.

The manuscript was prepared by Norma L. Hughes of the Graduate School staff.

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Dr. Don Paarlberg was appointed Special Assistant to the President October 8, 1958. In addition, he was appointed Food for Peace Coordinator in April 1960. He served as Assistant to the Secretary of Agriculture from 1953 to 1957. In August 1957 he was appointed Assistant Secretary of Agriculture. He advanced to the rank of Professor at Purdue University, where he taught and did research in the field of agricultural economics. He was born in Oak Glen, Ill. He holds a B.S. degree from Purdue; M.S. and Ph.D from Cornell. He is the author of "Food" and various bulletins and articles in the economic field.



FOOD FOR PEACE

Don Paarlberg

My purpose in presenting the first of a series on the international age in agriculture is to supply the basic logic which underlies agriculture's venture into the international age, a venture already well-advanced and on balance rather successful. I shall attempt to state the case for our special export programs and for the export of American agricultural technology. It is my feeling that a good job has been done. While more might be done and some things perhaps better done, it is important to see the rightness of the direction that has been taken. I am more interested in putting a positive and confident face on agriculture's venture into the international age than in attempting to rechart its course.

It would be easy to paint in rosy hue the great attainments which agriculture might achieve in its international venture. It would also be easy to hold up to ridicule some of our unorthodox international activities. The difficult task, and the one I have undertaken, is to show the opportunities without being carried away thereby, and to show the hazards without constructing a rationale for inaction.

In his special message to Congress on Agriculture in January 1958, the President had in mind matters similar to those under review in this program. He said, "I am setting steps in motion to explore anew with other surplus-producing nations all practical means of utilizing the various agricultural surpluses of each in the interest of reinforcing peace and the well-being of friendly peoples throughout the world—in short, using food for peace."

Three Historic Events

Our generation, in the mid-twentieth century, is witness to a conjunction of great, historic events, on which I would like to elaborate briefly:

First, we see the reawakening of the underdeveloped nations after many centuries of slumber.

Second, we see efforts by both the East and the West to assist these countries in economic advancement.

Third, we see a breakthrough in agricultural technology.

In Asia, in the Middle East, in Africa, in Latin America many peoples are making the exciting discovery that life can mean more for their children than it has meant for them. Thanks to modern travel and communication, the people of many nations are learning that poverty, hunger and misery are not the universal lot of mankind nor a burden that they need permanently to bear. Awareness has been increased, aspirations have been raised, hopes have been kindled, promises have been made. This is an outstanding fact of the twentieth century. It is a new dimension in our dealings with these people from this time forward.

Our second overriding historic event at this mid-century point is the great issue between the East and the West. This is a complication of incalculable significance.

Not simply do the people in the less-developed countries aspire to economic advancement, also there is intense and growing rivalry between the free world and the Communist bloc in assisting these people to attain the goals to which they aspire, and, in the case of the Communist effort, some additional goals to which the people do not aspire. This rivalry springs from the fact that many governments in the less-developed parts of the world, in their pursuit of economic betterment, hesitate between the free and the authoritarian route.

Approximately one-third of the people of the world are presently in the Sino-Soviet bloc. Clearly these people are committed, by their governments if not by their own wills, to authoritarian principles in charting their course to better economic and political life.

Approximately one-third of the earth's people are of the free world. Clearly these millions are presently committed to reliance upon representative government and the enterprise system in reaching for a brighter future.

The remaining third, are, in varying degree, uncommitted in the East-West struggle. Their decision may in time to come determine the balance of power. The strategic importance, not to mention the humanistic implications, of the ideological struggle for the minds of these uncommitted people is clearly seen by the two great contestants. Rivalry between East and West during most of the past decade has been direct, firsthand, and on occasion violent. In recent years this rivalry has shifted into a new area, in the direction of the less-developed countries. Most people would agree that this form of rivalry

is superior to an arms race. But let us not be deluded. It is a more subtle, softer, longer-range but no less meaningful contest. This shift of technique and of emphasis in the world struggle is of profound significance from every point of view: philosophical, military, political, economic, and, indeed, spiritual.

The third great historic event is the breakthrough in agricultural technology.

The breath-taking changes in farming of the recent past deserve to be characterized by a term seldom used in scientific circles—one reserved, in fact, for only the most far-reaching and significant developments—a major breakthrough. The realization of this monumental change is gradually making itself felt in scientific circles, among practical farmers, and among government officials.

Forty years ago it took 106 man-hours to grow and harvest 100 bushels of wheat. In recent years, it has taken not 106 man-hours, but only 22. During this period, the yield of wheat has doubled. For other crops similar dramatic changes have occurred.

As recently as a decade ago the country was concerned about its ability to supply the food needs of our rapidly growing population. These were the days of the so-called “fifth plate.” Today we’re not worrying about filling the “fifth plate”; we’re hunting instead for a “sixth customer.”

It is considered by many people that the reawakening of the underdeveloped countries, the international rivalry to assist them, and the agricultural breakthrough, are all major problems.

Problems Into Opportunities

Many people have dwelt upon problems created by the growing aspirations and expectations, and indeed the actual achievements, of the developing countries. New areas have come into production, to rival our export trade. Economic advancement has carried with it political and social upheavals which have disturbed relationships among the great powers. Twenty-two new countries have come into being since World War II. There are new faces at the conference table, there are new power blocs with which to deal.

Helping these developing nations is unquestionably a problem. It has imposed considerable cost upon the American people. Rivalry with the Soviet Union in helping these nations is viewed by some as simply an additional cost. Technical assistance, economic support, loans for economic development, gifts and grants add to a considerable sum, variously characterized, depending on the attitude, as “Giveaway,” “Foreign Aid,” or “Mutual Security.” The great food needs of these people, as measured in physical or nutritional terms,

are in the orthodox economic sense not needs at all since they lack the means with which to buy. Yet reality demands the meeting of at least a part of these needs.

The breakthrough in agricultural technology, the third of the current great events, has likewise been treated primarily as an unresolved and most vexing problem. Indeed, anyone who has had responsibility for dealing with its consequences finds it hard to consider the breakthrough in any other light. The growing stocks of surplus crops, the downward impact upon prices, the mounting costs of farm programs, the painful adjustments required of our farm people, and the bitter legislative battles which both result from and cause or perpetuate these maladjustments, these are clear enough to any observer.

Thus anyone approaching these great historical events in a conventional manner finds in them many grave and difficult problems. Looking at them separately and from a traditional point of view leaves one bleak and baffled. This arises from the inclination to be problem-prone rather than opportunity-oriented.

What we need to do is to view these historic events not from a conventional attitude, but with a fresh look. We need to see them not separately, but in relationship to one another.

Thus seen, the breakthrough in agricultural technology gives us the opportunity to help the developing nations to help themselves, to help build a political, economic, and social structure suited to their aspirations and oriented toward freedom, therewith to strengthen the free world in its struggle with the forces of totalitarianism.

Among the various areas of our rivalry with the Soviet Union, there is no economic sector in which our advantage is as clearcut as in agriculture. This is true despite recent Soviet advances in this field. The American farm worker outproduces the farm worker of the Soviet Union by a ratio of about four-to-one. The status of our agricultural science, in most respects, is superior to theirs. Our system of agricultural education, at all levels, is the world's best. Our system of family farming has demonstrated its superiority over the authoritarian system. Our farmers are more skilled, our farms are better-equipped, our resources of soil and climate more bountiful than those of the Soviet Union. And, perhaps most important of all, private ownership and freedom of decision gives our farmers a tremendous advantage that does not exist among the agricultural workers of the Soviet Union.

In any form of rivalry, it is a good principle to join the issue, if one can, where one's relative strength is the greatest. There is no other area for which our relative strength so greatly exceeds that of

the Soviet Union as in the field of agriculture. There is the opportunity to make this sector, rather than some other, a major testing ground in our rivalry, and it is clearly in our interest to do so.

What is this opportunity to utilize, in our rivalry with the Soviet Union, the comparative advantage that we have in the agricultural field? The opportunity is great indeed, and we have gone a long way toward fulfilling it. The people of the developing countries are primarily agricultural. Perhaps 85% of the people live on farms or in agricultural villages. Their greatest needs and their greatest understanding are in farming. There is a kinship among farm people throughout the world. There is no better medium by which we can communicate with these people than through the thing they know best: Agriculture. They need the fruits of our agricultural sciences, they need what we have learned about agricultural education, they need the food and fiber which fill our warehouses and which our farms are capable of producing in large volume. The beginning of industrialization, also needed, is agricultural improvement which releases people from food production to non-farm jobs. We can and do associate our abundant agricultural capacity with their very great needs.

There are opportunities, not just problems, in our food potential.

There are some who view the food needs of the developing parts of the world simply as a safety valve to permit the continuation of unsound price support legislation in the United States. What I am suggesting is something far different: The conscious reorientation of our farm policies with respect to the needs and opportunities of our foreign policy.

This is not a new thought. It has already been partly put into effect. What I am really doing is to provide the logical basis for a recasting of attitudes toward the opportunities which confront us.

Supports and Controls

Most in need of recasting are the price-support laws. Legislation originally drafted to overcome a recession, retained to fight a war, and grudgingly but insufficiently modified to accommodate a scientific revolution is unlikely to be appropriate to the international age in agriculture. We do not need an export program to bail out our unwise price-support laws; we need farm programs that accommodate the present needs of our farm people, that recognize the breakthrough in agricultural technology, and that enable us to meet the world-wide opportunities presented by the great events that I have described. We have a workable agricultural export law; we need more appropriate domestic programs.

We should cease to hinder the emergency of a rational production

pattern. We should cut farm program costs. The public probably will support a reasonable farm export program which fits well into our capacity for abundant production and fits well into our foreign policy; it is not clear that the public will continue to support a price-support program which grows even more costly and seems to fit very little that is rational. There is no need, with the present high level of agricultural output, to use price supports at inducement levels, thereby further stimulating production.

Production controls, on the basis of experience, seem unable to choke off the abundant flow of American farm products. The total cost of purchasing non-production, through various programs which have that intent, is a heavy cost indeed. It may cost approximately as much to prevent the production of a bushel of wheat as it does to grow the bushel and move it abroad even if no payment is received. Costs are hard to determine accurately but evidence points in this direction.

U.S. Export Programs

Many good people have a wary attitude toward farm legislation designed to move increased amounts of American farm products overseas. This is because most such proposals in the past have involved some kind of dumping scheme or some threat to the international price structure. This wariness originally was reflected in a skeptical attitude toward Public Law 480, the chief legislative machinery for surplus disposal. But the experiences of the past five years have considerably reduced this apprehension. The idea of insisting that these special export programs move *additional* quantities of farm products, beyond what the regular market will take—this is what distinguishes PL 480 from other export programs. It is my feeling that PL 480, which has been considered by some to be the province of idealists and temporizers, might better be considered as subject matter for hard-headed realists.

If a special export program enables us to help meet the food needs of the developing nations and at the same time permits us to find a useful outlet for our abundant production, this is all to the good. PL 480 is such legislation. It is no discredit to the surplus disposal aspect of the law that it also meets the needs of our friends abroad. And it is no discredit to its foreign policy attributes that it also helps move our heavy inventories. That the law serves two purposes rather than one does not diminish the importance of either.

The merits of this approach are increasingly recognized by the countries which receive the products, by the nations of the Soviet bloc, by the various countries of the free world which export agri-

cultural products in competition with us, and by the people of the United States.

We are sending our food abroad and also our agricultural technology, both in significant quantities. Our agricultural shipments are a combination of conventional commercial sales for dollars and special export programs such as I have been describing.

In fiscal year 1959, the United States exported \$3.7 billion worth of farm products, production from the equivalent of approximately 40 million acres. About \$2.4 billion worth was sold for dollars, much of this with the help of export subsidies; \$729 million worth was sold in exchange for the currencies of the nations to whom the goods were shipped; \$189 million worth was donated to needy people; and \$144 million worth was bartered for strategic materials, which went into our stockpile.

Most of our exports thus move in the commercial markets, for dollars. We must continue to maximize this kind of trade. When special export programs must be used, the purpose must continue to be, as soon as possible, to shift to sales for dollars.

Some of these programs of necessity are new, unique, and unorthodox. They are not described in the standard texts on international trade. They have grown up out of necessity because our stocks were heavy and because dollars weren't available in the countries which needed our products. The "Food for Peace" program announced by the President and administered by the Secretary of Agriculture is designed to improve the operation of these special export programs.

"Food for Peace"

Food can be a powerful ambassador of good will and hence an effective instrument for peace. The food exporting nations can associate themselves together helpfully in this endeavor, as with the leadership of Secretary Benson they are now doing. This is the purpose of the "Food for Peace" program: An expansion of commercial trade in farm products and a strengthening of our special export programs.

It may well be that the "Food for Peace" effort will yield its greatest returns in improved international understanding rather than in sharp increases in the quantity of food moving under special export programs. This, of itself, would be worthwhile.

Nevertheless, every constructive effort is being made to increase the quantities of agricultural products thus moved in a manner helpful both to the nation which exports and the nations which import.

American farm products and agricultural technology move abroad through a variety of mediums and through a great number of programs. In the past they moved chiefly through American business,

and through our agricultural missionaries. More recently, they move through private business, through special programs, through educational efforts, such as carried on by the International Cooperation Administration, through the various foundations, and through multi-lateral programs, such as the Food and Agriculture Organization of the United Nations.

Agriculture's venture into the international age has been along a variety of paths: Private and public, unilateral, bilateral, and multi-lateral. Each of these has its own merit and its own place. If I appear to stress the public programs, it is merely because they are the newest, the most unique, and the most controversial.

We have much to contribute in the form of agricultural science and education as well as in the form of farm products themselves.

American agricultural science is on the march throughout the world. In 54 countries, more than a thousand American agricultural scientists are at work under a wide variety of government and private programs. Since the end of World War II, thousands of foreign-born agricultural scientists have returned to their native lands after study and training in the United States. Last year we received more than 3,000 agricultural visitors from abroad. The American system of adult education in agriculture has been adapted and put to use in many countries around the world. Our scientific know-how must be *adapted* rather than *adopted*. The differing conditions abroad make it impossible to transplant our agricultural science directly. Continued ingenuity is needed to modify our American methods.

There is a Danish proverb which says that "You may light another's candle at your own without loss." The net result of assisting other countries is to make our own economic candle-power stronger and brighter.

We often forget that much of our own agricultural science was borrowed from abroad and adapted and improved in this country. Our own economic progress in the field of agriculture could not have been as rapid as it was—despite our vast wealth of natural resources—without the skills and capital furnished to us by Europe. We have the opportunity and responsibility to provide for others the kind of light and knowledge which were so important in our development.

There are some unique things about transplanting American agricultural science abroad, but in many respects it is similar to the extension work launched so successfully in this country 50 years ago.

Illusions and Problems

Although we have great opportunities in these fields, we face difficult tasks. Further ventures into the international age for agriculture

are beset by illusions, problems, and hazards, difficulties sufficiently great to discourage the faint-hearted.

First let me cite some illusions.

One illusion is that economic development is a soothing experience and is likely to result in political, social, and economic stability in those developing countries which experience it. This simply is not true. Agricultural advancement carries with it many difficult adjustments, as we have seen in this country: Shifts in population, changes in land use, and altered institutions in all the social sciences. These cannot be bypassed, hurdled, or transcended. They are the price of progress. The developing nations have themselves elected the path of progress. It is useless to second-guess their decision. We cannot put the chicken back into the egg. The birth pangs of progress cannot be averted, though by the use of intelligence they may be diminished.

Another illusion is the belief that if only the material needs of the developing nations can be met, these nations will renounce Communism. This is not true; the mind and the spirit are concerned as well as the stomach. Food is an essential but not a sufficient condition for the development of free institutions.

Still another illusion is the thought that the agricultural problems of the developing countries can be met quickly and that the American tendency for excessive production will be of brief duration. This seems unlikely to be true. Programs may well be kept on a temporary basis so as to allow modification as experience is required. But programs set up with the expectation that foreign needs will soon diminish and that the conventional market will shortly consume our total production will probably require reexamination.

I have cited some of the illusions; now for some of the problems.

One of the problems is to convert our thinking in such a manner as to permit us to view the great events of the mid-twentieth century as stepping-stones, not stumbling-blocks. Another problem is to hold to a reasonable level the public cost of agriculture's venture into the international age.

In providing technical assistance, our problem is to give this work more status, to make foreign assignments of long enough duration to be genuinely helpful, to be good guests abroad. For problems certain to be of extended duration, we need to think in longer terms than two-year assignments and annual appropriations.

We should avoid sending overdeveloped scientists to underdeveloped countries.

Other problems are to learn better how to distribute our agricultural products without disturbing our commercial markets, how to

associate our efforts helpfully with the other food exporting nations, and how to use the foreign currencies generated by our programs.

Another problem, and a great one, is to learn better how to terminate special export programs when the need for them has passed. Assistance must be such as to help these countries stand on their own feet and make their own way. On any other basis, the program would be harmful both to the country which supplies the assistance and to the countries which receive the aid.

Helping people to help themselves is not a novelty. We have learned how to do this in a number of sectors. We have learned to graduate farmers from supervised credit, as in the Farmers Home Administration, to competitive commercial credit. Western Europe was graduated from the Marshall Plan. We can help countries to graduate from our special export programs to commercial trade. Indeed we have already done so. We have shifted from sales for foreign currency to sales for dollars for Italy, for France, for Japan, and for Austria. It shall have to be done for other countries as they achieve capability. The speed with which this can be done will vary, of course, from country to country, and the difficulties of accomplishing it will, in many cases, be very great. That this is a substantial problem, there is no doubt. That it is hopeless I firmly deny.

A "Food for Peace" program is beset not only by illusions and operating problems but by positive hazards as well. One of the often-stated hazards is the possibility that the rapidly increasing populations in these countries may swallow up all that we can provide through our special export programs and advancing agricultural technology.

Those pessimistically inclined will say that this risk is so great as to argue against undertaking the venture in any form. Bolder people see in the increasing populations a great need to provide new technology in food production, as well as food itself. There is the need to introduce technology at a more rapid rate than the rate at which the population increases. Indeed this very thing has occurred generally throughout the world during the past decade. There have been no major famines during the past 10 years. History records no previous experience of like duration. Our age is unique in that for the first time in history men in all parts of the world are daring to think seriously in terms of enough food for all. There are indications that voluntary checks on the rate of population growth may, in time, reduce the dimensions of the problem.

If economic development can go forward with sufficient rapidity, it can become self-generating and in time out-grow the need for reliance upon the United States. This is the hope that draws us on despite the illusions, the problems, and the hazards.

The problems of the international age in agriculture are difficult and complex. There is risk in each effort made. But the risks of failing to face up to this opportunity are far greater than those involved in considered action. Political explosions can result, in a shrinking world, from a widening gap between the wealthy and the underdeveloped countries. The embrace of Communism by underdeveloped nations which insist upon economic progress and cannot find it within the institutions of the free world—here is a risk that is grave indeed. And to waste our capacity for abundant agricultural production, to make a problem out of what is in fact a great opportunity, this is a severe indictment. Every citizen senses that food is good and that abundance is a blessing rather than a burden. The problem has its moral as well as its economic and political aspects. This is important in America. The very possession of knowledge and the very capability of abundant production carries with it a responsibility to make these things useful.

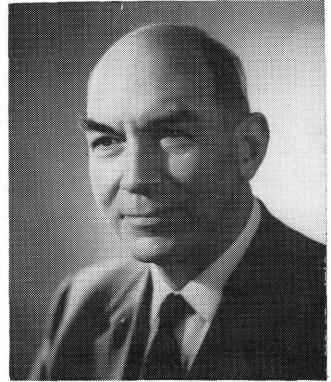
Future Course

This is truly the international age in agriculture. We have, in various ways, propelled agriculture into this age, largely as the result of unmanaged circumstance and without a full consciousness of the possibilities and limitations of this course. The remarkable thing is that we have done as well as we have. Sharing the credit for such success as we have experienced are both the Executive and Legislative branches of the Government, the business community, and the private citizen as well as a whole cadre of scientists, educators, and administrators. These same persons bear responsibility for advancing us beyond the stage we now occupy.

What I have endeavored to do is to show that the patterns emerging from the venture thus far make a great deal of sense. Having accumulated some years of experience in matching the capabilities of American agriculture with the needs of the uncommitted and underdeveloped nations of the world, we now are reviewing and evaluating our experience to find in it those efforts which have been fruitful, to eliminate or improve those projects which have fallen short of the mark, and to evolve a conscious policy out of what has hitherto been a poorly understood though a rather successful venture.

Agriculture was formerly a stagehand in the dramatic play titled "Foreign Policy." It is now a legitimate member of the cast.

Dr. Norman Charles Wright has served as Deputy Director-General of the UN Food and Agriculture Organization since January 1959. Before that he gave unstinting support to FAO, as a member of its Mission to Greece in 1946, as a member of the United Kingdom delegations to all FAO conferences and council meetings, and in many other official capacities in the organization. Educated at Cambridge and Oxford, Dr. Wright has had a long and distinguished career in agricultural research and administration. As a Commonwealth Fund Fellow, he spent two years in the United States, at Cornell University and in the U. S. Department of Agriculture in Washington.



TECHNICAL ASSISTANCE PROGRAMS IN AGRICULTURE —INTERNATIONAL AND REGIONAL

Norman C. Wright

Technical assistance to underdeveloped countries is, of course, no novelty. Your own Senate Subcommittee on Technical Assistance Programs¹ has traced it from the time of Alexander the Great, through the international interchange of technical information, which was one of the features of the Renaissance, to the period of settlement of overseas territories when indeed the United States itself, among other countries, received substantial aid from Europe. During these earlier periods technical assistance was, however, largely a byproduct of conquest, colonization, commerce or missionary enterprise, in which the donor countries were chiefly the metropolitan powers and the recipients their dependent territories. With a few notable exceptions this remained true up to the time of the Second World War, though it would be a mistake to assume that self-interest was always dominant and altruism invariably lacking.

Missionary enterprise accomplished much but inevitably on a relatively small and localized scale. It was under the sponsorship of metropolitan governments or of private enterprise that the great irrigation works, the large-scale clearance of hitherto uncultivated land, and the striking improvements in crop and animal production and protection, raised the agricultural productivity of so many underdeveloped countries during the nineteenth and the first half of the twentieth centuries, with benefits to donor and recipient alike.

The real changes in technical assistance during the past 15 or 20 years are those concerned with its origin and magnitude. During this

¹ Technical Assistance. Final Report of the Committee on Foreign Relations. 85th Congress, 1st Session. Report No. 139.

period more than 20 countries have achieved national independence. There are new entrants on the waiting list. Others, as a result of war, have required rehabilitation and redevelopment. Still others, stimulated by progress in neighborhood underdeveloped areas, have sought aid in improving their economic and social conditions. The combined requirements of these countries have demanded assistance on the basis of hitherto unprecedented altruism and on a hitherto unprecedented scale.

In dealing with my subject I shall first describe very briefly the objectives and scope of the various agencies and organizations which directly or indirectly furnish technical assistance in agriculture. I shall deal primarily with those activities which involve the provision of technical experts to underdeveloped countries, of the supplies and equipment essential to their work, and of fellowships for technical training. Where I use the term "agriculture" I intend it to cover all aspects of agricultural and food production, including forestry and fisheries.

Thereafter I shall consider certain policy issues. The four issues which I propose to deal with are (1) the need for closer cooperation between technical assistance programs, (2) the balance between bilateral and multilateral technical assistance, (3) the provision of counterpart personnel and of fellowships and (4) desirable expansions in technical assistance in the agricultural field.

I am, of course, alive to the danger of raising such controversial issues. Nevertheless, it is only by a frank exchange of views that progress can be achieved, and I feel that the advantages of this approach outweigh its disadvantages. I should, however, make it clear that the views I express are purely personal ones and do not necessarily represent those of the Food and Agriculture Organization, though many of the points to which I shall refer have in fact been the subject of consideration, and in some instances of formal resolution, by the organization's conference and council.

Objectives and Scope of Technical Assistance

May I turn, then, to deal briefly with the objectives and scope of the various organizations and agencies which are concerned with providing international, regional, and private technical assistance programs in agriculture. I propose to refer first to bilateral activities including the Colombo Plan, then to multilateral activities, including the UN Expanded Program of Technical Assistance and technical assistance provided by or through the Specialized Agencies, the United Nations Special Fund, the Regional Economic Commissions and certain other regional commissions, the Commission for Technical Co-

operation in Africa South of the Sahara, and the Organization of American States, and finally to private foundations.

I have given pride of place to bilateral activities because in both financial and personnel resources, the U. S. International Cooperation Administration is not only making the largest single contribution towards technical assistance to underdeveloped countries, but has paved the way for parallel activities by other agencies and organizations. It covers programs in health, education, agriculture, industry and other fields. These are interrelated in such a way as to provide a rapid impact on the country concerned, as well as long-term benefits. Indeed, one of the conditions of aid is that the ICA evaluates on a continuing basis all aspects of the economic and social development of the recipient country, so that the agreed activities not only fulfill these criteria but can be dovetailed with any other form of U.S. bilateral aid (e.g. development loans) which may be sought and approved. In this continuing evaluation the officials of all relevant departments of the recipient government participate fully.² The administration's country programs are therefore based essentially on the principle of mutuality, i.e. on the joint planning and execution of activities between the recipient government and the United States.

The Technical Cooperation Program is not, moreover, limited to the provision of bilateral assistance through experts employed directly by ICA, which provides facilities for participants from underdeveloped countries to receive specialized training in the United States, and finances non-profit contracts with universities, private foundations, and other voluntary organizations, and profit contracts with industry, to undertake technical assistance activities in the field.

Excluding the Sino-Soviet bloc technical assistance, which will be dealt with in a later lecture, the second largest scheme of bilateral assistance is that associated with the Colombo Plan Technical Cooperation scheme. Often referred to as a multilateral scheme, this is in fact bilateral in nature, since its activities are based on a series of bilateral agreements between individual donor and recipient countries. The scheme is confined to South and Southeast Asia, and the participating countries are Australia, Canada, Ceylon, India, New Zealand, Pakistan, the United Kingdom, and British dependencies in the area, together with 10 other countries within the region. The United States is also a member of the Colombo Plan, but for administrative reasons its large technical assistance program under ICA sponsorship is kept separate.

² The United States Point 4 Program—A Bilateral Approach. Rolling S. Atwood. "Annals of the American Academy of Political and Social Science," May 1959.

The detailed work of the plan is coordinated by a Council and a Bureau for Technical Cooperation, which form clearinghouses for the compilation and exchange of information, but which do not take part in actual negotiations between donor and recipient countries. The full plan includes arrangements for capital aid, but from the aspect of technical assistance, it is based, like ICA, on the supply of experts, of training facilities, and of equipment that may be needed for local training purposes and to enable experts and trained nationals to carry out their functions adequately.³ Like ICA, Colombo Plan program is also based on the principle of mutuality, and it shares the advantage of being able to dovetail technical assistance with other forms of aid.

Although I have not found it possible to collect and enumerate the various other sources of bilateral assistance provided by individual countries, such assistance is both widespread and substantial, being provided most notably by a number of European countries—France, Germany, The Netherlands, and the Scandinavian countries, to take typical examples—by strictly bilateral agreement between donor and recipient. Such aid may be based on purely altruistic motives, on the special relationship between a metropolitan country and its dependencies, or on the encouragement of mutually beneficial trade and commerce, but the outcome is essentially improvement in the conditions of production and the standards of living of the recipient.

May I turn now to multilateral assistance. Here pride of place must clearly be given to EPTA, the United Nations Expanded Program of Technical Assistance, which constitutes the largest single source of aid.

This program originates because the regular budgets of the UN Specialized Agencies were inadequate to cope with the demands made on them for technical advice in underdeveloped countries. To meet this difficulty, the UN General Assembly voted, in 1948, the modest sum of \$300,000 to provide technical assistance for economic development.

This sum was clearly inadequate to meet the growing needs and, in 1949, the UN Economic and Social Council, stimulated by the United States Point 4 Program, established a joint United Nations and agency program to be financed by voluntary pledges from UN member countries. Within 10 years, the original sum of \$300,000 had been raised to over \$30 million, contributed by some 85 member gov-

³ The Colombo Plan Technical Cooperation Scheme: Report for 1957-58. H.M.S.

ernments, including some 40% by the United States of America.⁴

EPTA is both a multilateral and a multi-agency program. It is administered through the United Nations and eight other members of the UN family. There is available, in each specialized field, the expert knowledge and "back-stopping" of the agency concerned, such as FAO in food and agriculture.

Here again the technical assistance activities, furnished in the form of resident experts, of fellowships and of demonstration equipment, are based on the principle of mutuality in regard to planning, financing and execution, though so-called "country programming" gives the predominant influence to the recipient country.

Assistance is provided only at a government's specific request. Recipients undertake obligations in regard to payment of local costs. It is incumbent on them to provide counterpart personnel and facilities so that the work of the experts will be continued after the completion of their assignments. In theory, at least, every request must be shown to have a direct bearing on the economic development of the country and, the projects are, where appropriate, coordinated with the work of the International Bank for Reconstruction and Development and the International Monetary Fund, as well as with that of such agencies as UNICEF and certain relief organizations. The detailed program of technical assistance is coordinated by the Technical Assistance Board, which consists of representatives of the United Nations and the UN Specialized Agencies.

Apart from EPTA itself, some of the specialized agencies have funds which can be directly allocated to technical assistance in under-developed countries. Thus UNESCO has \$505,779 for this purpose; and WHO, \$724,000. No such allocation can however be made within the very limited regular budget of FAO, which therefore has to rely almost entirely on EPTA for financing its technical assistance program. On the other hand, FAO has persuaded a number of individual countries to finance certain of their own technical assistance needs by a system of funds-in-trust. Of the total of such "self-help" provided by individual countries, FAO accounts for by far the largest share—\$1.13 million out of \$1.3 million, or 87% of the total.⁵ This, however, is a small sum in comparison either with the EPTA allocation within FAO's field of competence (roughly \$7 to \$8 million) or with the needs and requests of recipient countries.

⁴ UN Expanded Program of Technical Assistance. David Owen.

⁵ Technical Assistance Committee. Annual Report of the Technical Assistance Board for 1958.

A second UN source of assistance is the UN Special Fund, whose original purpose was to bridge the gap between technical "know-how" and substantial investment projects based on the application of new and improved techniques. In this sense the fund was designed to aid in financing preinvestment projects. It is, however, difficult to demarcate the boundary between technical assistance and preinvestment projects; since in regard to material facilities one is only assessing relative magnitudes, and in regard to manpower it is clear that an adequate cadre of trained personnel is a prerequisite to many investment projects. Thus out of 13 projects recommended in the "first round" by the fund's managing director to his governing council, no less than 5 are concerned with personnel training. Five of the 13 projects fall within FAO's competence, all in the field of land and water development—an obvious field for preinvestment projects. A wider selection of agricultural projects is, however, understood to be under consideration for the "second round."

Turning to the Regional Economic Commissions (ECAFE, ECLA, and the recently established ECA) these act in a consultative capacity to the technical assistance and specialized agencies and have no separate technical assistance funds at their disposal. They possess, of course, permanent staffs who *inter alia* provide technical advice within a broad economic field, both to the region as a whole and to individual countries within the regions. In regard to agriculture, joint agricultural divisions have been or are about to be set up to collaborate in fields of joint interest and to aid the region or its constituent countries to draw up plans for joint agricultural economic development, including community development and rural welfare. But the United Nations and the UN Specialized Agencies remain the channel for the provision of technical assistance in the accepted sense, that is, experts, fellowships, and training equipment. The same general principle applies to other regional commissions of a more general nature.

The Commission for Technical Cooperation in Africa South of the Sahara (CCTA) is of special significance in view of the increasing recognition of Africa's great potential. This is essentially a multilateral organization whose membership includes both metropolitan governments and independent governments and federations. Its general objective is to ensure technical cooperation between the territories for which the member governments are responsible. For this purpose, it possesses both a general secretariat, a scientific council with a number of technical committees, and a series of technical bureaus. In agriculture, for example, these cover soils and rural economy (with an Inter-African Pedological Service), plant diseases and pests (with

a Phyto-Sanitary Commission) and epizootic diseases (with an Inter-African Bureau in Kenya). Here again, however, the function of the Commission (CCTA) in regard to technical assistance is "to make recommendations to Member Governments with a view to the formulation of joint requests for technical assistance from international organizations." ⁶

The Organization of American States is similarly a regional body, but with resources at its command for the implementation of a technical assistance program. Established in 1950 by the Inter-American Economic and Social Council, it furnishes a multilateral program of technical assistance in the American Republics, to the cost of which the United States contributes about 70%. The total cost of the program, amounting to about 1½ to 1¾ million a year,⁷ is very small in comparison with either the ICA Technical Cooperation Program or EPTA. Its activities are correspondingly limited in scope, and have wisely been confined almost entirely to the provision of regional training centers and of special study courses and seminars. In agriculture, the present program includes technical training and courses or seminars in certain aspects of the diseases of cattle, in human nutrition and feeding, in mapping photo-interpretation, and in certain aspects of social welfare.⁸

Finally, to round off this summary of available technical assistance to underdeveloped countries, I should refer briefly to the role of private foundations and certain other voluntary agencies. In 1958 there were 80 contracts covering 54 universities and involving an expenditure of about \$70 million.⁹ While I have not found it possible to assess the extent to which these contracts cover agricultural subjects (since many are listed on a multi-subject basis), the share of agriculture is no doubt large. In a recent list, over a quarter were devoted solely to agriculture, while in nearly half, agriculture was specifically included as one of the major fields of activity. These contracts are, however, government sponsored.

In addition, the great private foundations also play their part. For example, the Rockefeller Foundation, long operating in the field of medicine, has in the last 15 years or so developed an expanding program in agriculture, providing technical services, training and

⁶ Ninth Meeting of the Scientific Council, CCTA, 1958.

⁷ Financing Technical Cooperation. Rowland Egger.

⁸ The Mutual Security Program, Fiscal Year 1960. A Summary Presentation.

⁹ International Cooperation Administration. Operations Reports 1958 and 1959.

equipment on a world-wide scale. The Ford Foundation has undertaken extensive work in India in the field of community development and in the development of small industries, many of them ancillary to agriculture. It has also appropriated large sums for a variety of development and training projects in Asia and the Middle East over the past 5 to 7 years. The Near East Foundation has, since 1930, established an outstanding reputation in encouraging the improvement of basic farm practices and the adoption of simple techniques designed to improve agricultural productivity.¹⁰

In Central and South America some 20 North American private agencies are providing technical aid. Among these are the Rockefeller Foundation, which has financed improvements in agricultural education and in the productivity of food crops, and the Rockefeller brothers, who have sponsored credit and rural assistance and methods for the improved distribution of food.¹¹

Although these and other examples of private munificence do not compare in absolute magnitude with the bilateral and multilateral aid provided by governments, they represent substantial contributions, which are all the more valuable since, in the words of a recent article,¹² they "may be adapted more easily to the problem in hand; and may even be more useful in some ways in solving it, if only because private agencies can work with more tact and frankness, and under less public pressure, than can governmental ones. And, if a private project fails, or is only half successful, its participants will not be flayed by congressional inquiry!"

Need for Closer Cooperation

The number and variety of organizations and agencies concerned with technical assistance provide sufficient indication that, unless close and continuous cooperation is assured, there are definite risks of undesirable overlapping and duplication of function between them. In regard to UN Specialized Agencies these risks are minimized by the existence of the Administrative Committee on Coordination, which comprises the heads of all the specialized agencies or their representatives. The coordinating functions of this committee have been given additional impetus not only by the ECOSOC Resolution

¹⁰ Doing Good Abroad. II. New Models in Asia. "Economist," November 15, 1958.

¹¹ Doing Good Abroad. III. Latin American Laboratory. "Economist," December 6, 1958.

¹² Doing Good Abroad. "Economist," October 11, 1958.

on concentration and concerted action but by the resulting Forward Appraisals which are, at the request of ECOSOC, being prepared by each of the UN Specialized Agencies as well as by the United Nations itself. In the EPTA programs, coordination is achieved through the Technical Assistance Board, on which all participating UN Specialized Agencies are represented. In other agencies and organizations many arrangements for coordination between multilateral and bilateral assistance, and between two or more forms of bilateral assistance, already exist. For example, the most recent EPTA report indicates that in about one-fifth of the 1958 EPTA projects there was active cooperation with bilateral programs. Again, the Colombo Plan Secretariat exchanges documents with ICA, while CCTA furnishes information to other countries through diplomatic or scientific channels, and has contacts with the specialized agencies on matters of joint concern. Nevertheless, even between the agencies and organizations themselves there would still appear to be considerable room for improvement.

But in considering this problem it is vital to recognize that, since technical assistance is never imposed on a country but is based essentially on the principle of mutuality and on specific country requests, the only really effective form of interagency coordination is that initiated by the recipient country itself.

Patterns have already been set in some countries. To take three examples: Afghanistan has arranged for a review of its agricultural development program by a standing group representative of the relevant government departments and of the agencies providing technical assistance. In India, the Ministry of Food and Agriculture has considered constituting a similar interagency committee to ensure the coordination of all external aid with its new five-year plan. In Ceylon, informal meetings of experts belonging to the Colombo Plan, the ICA, and the UN are held every month to discuss questions of common interest. Such arrangements are, however, the exception rather than the rule. They require, however, full participation and cooperation by all the technical assistance agencies concerned, who must be prepared, if necessary, to adjust their own programs accordingly. Otherwise there will be the risk not only of wasteful effort but of a recipient country (to put it frankly) playing off one agency against another. This risk is, perhaps, greater in agriculture than in medicine, where the measures to be taken are more definitive and the results more readily assessable. But unless some such system of interagency coordination, based on country initiative and leadership, can be established by recipient governments, any substantial advance towards well planned development will be seriously retarded.

Balance Between Bilateral and Multilateral Assistance

There can, I think, be little difference of view regarding the desirability of more effective coordination of all forms of technical assistance, whether bilateral or multilateral. A much more debatable issue is the best distribution of funds between bilateral and multilateral technical assistance programs. As one who might be expected to be an interested party, I have had some hesitation in raising this controversial issue. Nevertheless, it is of such importance and one which has been so widely discussed in your country that I feel this lecture would be incomplete without some reference to it. Fortunately it has formed the subject of several of your own official reports, which together provide material for presenting what I hope will be a balanced view.

The arguments in favor of greater emphasis on multilateral technical assistance were discussed in detail in a study published two years ago by the Brookings Institution.¹³ They may be summarized as follows:

(1) Beneficiary countries are less sensitive about receiving multilateral aid, and less apprehensive that their political sovereignty and independence may be compromised. (2) In multilateral programs the less developed countries are donors as well as recipients; they both send and receive experts and trainees—a point of obvious importance in establishing mutual confidence. (3) Since the policies of multilateral agencies are not normally subject to the influence of political or commercial considerations, they should have less difficulty in making objective decisions regarding the giving or withholding of technical assistance. (4) In the recruitment of experts multilateral agencies have three advantages; they can range over the whole world to find suitable people—and in such fields as tropical agriculture this is specially important; they can consequently recruit experts from countries whose conditions are not widely dissimilar from those of the countries to be served; and they can attract competent experts without offering unduly high remuneration.

These advantages over bilateral programs are substantial, and in view of the present imbalance between the resources available to bilateral and multilateral agencies, they would appear to justify a considerable expansion in the resources of the latter. On the other hand, bilateral programs possess certain valuable characteristics which multilateral programs tend to lack, and to which the latter should be direc-

¹³ Administrative Aspects of United States Foreign Assistance Programs. U. S. Government Printing Office, 1957.

ted in the future if they are to make their maximum impact on recipient countries.

First, the technical assistance budgets of bilateral agencies are subject to the sole control of the government of the donor country. This makes it possible to secure a degree of stability (and equally a degree of flexibility) difficult to obtain when the budget is based on annual voluntary pledging by a group of individual governments. As a result, bilateral agencies can recruit personnel either on a permanent basis or on sufficiently long-term contracts to enable them to devote their full energies and interests to the problems of underdeveloped areas. By contrast, multilateral agencies (and I am thinking particularly of EPTA) are at present unable to guarantee continuity of assignment or indeed of employment, except for a minority (in the case of EPTA some 5%) of their experts. It is true that efforts are always made to reemploy successful EPTA experts either on their old or on new assignments. But this is a poor substitute for career prospects in bilateral agencies. A substantial increase in permissive permanent appointments under EPTA sponsorship is therefore urgently needed. It should be possible even under the present system of voluntary pledging.

Second, in consequence of this budgetary stability, bilateral agencies are not only able to provide a more adequate period of briefing for their experts, but—as with ICA—are in a position to organize full training facilities for overseas work, either on initial appointment or for periodically updating and revitalizing experts who have already served in the field for a period of years. Multilateral agencies, so long as they depend on annual subventions and have to employ experts on a year-to-year basis, are unfavorably situated in regard both to periods of briefing and to initial or inpost training. Even if arrangements could be devised to meet this difficulty, their present limited resources would make actual implementation difficult. A substantial increase in these resources, combined with a larger proportion of permanent appointments, are both essential if this defect is to be remedied.

Third, since various forms of bilateral aid can be provided by a single administration or government, it is relatively easy for bilateral agencies to dovetail technical assistance with other forms of aid derived from their own resources (e.g. with development loans) and thus to sponsor a well integrated development program in the recipient country. This should not be impossible with multilateral technical assistance, since arrangements exist for coordination both with other multilateral agencies, such as the UN Special Fund, the International Bank for Reconstruction and Development, the International Monetary Fund, and the United Nations Childrens Fund. But it is one

thing to have unified control and quite another to have to rely on voluntary coordination between a number of autonomous agencies.

The need for technical assistance programs to be based on such long-term planning and coordination of effort has only recently been highlighted in the Report of the FAO Mediterranean Development Project.¹⁴ "The program," the report states, "would be strengthened if it were possible to secure a long-term perspective in formulating technical assistance requests. The development programs for individual countries would provide the background for long-term perspectives . . . Pilot projects would provide a particularly suitable example of the integration of technical assistance with the actual implementing of development programs . . . long-term finance should eventually take the place of the present system of *ad hoc*, and usually annual, appropriations."

These are surely the objectives towards which, with expanded resources, multilateral agencies could and should direct their efforts if their technical assistance programs are to be fully effective.

While the foregoing points apply throughout the whole technical assistance field, they are particularly relevant to agriculture. Improvements in agricultural techniques cannot be secured rapidly. Stability and continuity are therefore specially important in agricultural technical assistance. Agricultural conditions, moreover, differ widely in different parts of the world. For example, what is suitable for a temperate climate and environment is often inappropriate for a tropical; and within the tropics there are marked differences between the needs of the wet and dry areas. Moreover, the term "environment" includes not only the physical conditions but equally the economic circumstances, as well as the social habits and customs of the local population.¹⁵ It is therefore specially important that experts in the field of agriculture be both well briefed on assignment and retained in their posts long enough to be able to use their specialized experience of novel environments, while being provided with periodic opportunities for the exchange of information with others in similar environments, as well as for contacts with recent scientific and agricultural findings. And finally it is essential that their assignments should be closely related to parallel developments within the overall economies of the countries which they serve, in many of which agriculture is at present the major source of both subsistence and revenue.

¹⁴ FAO Mediterranean Development Project. The Integrated Development of Mediterranean Agriculture and Forestry in Relation to Economic Growth. FAO, Rome, 1959.

¹⁵ The Cultural Curtain. Dorothy Lee.

It appears, therefore, that, while there are unique advantages in the multilateral approach to technical assistance, there is, in the light of bilateral experience, still much room for improvement in the methods of its financing, in its organization, and in its coordination with other forms of multilateral aid. But the key to such improvements lies primarily in raising substantially the resources at the disposal of multilateral agencies.

This brings me to the crucial question of the actual balance between bilateral and multilateral assistance. It would clearly be inappropriate for me to express a view on this controversial issue. I will, therefore, confine myself to quoting what seems to be both a relevant and a fair summary from the study made by the Brookings Institution.¹⁶ While pointing out that there is still need for a continuation of bilateral activity, the institution's report states: "At the same time, there is support for increasing the United States financial contribution to the United Nations program to a much larger annual sum, as large an increase as can be made without damaging the multinational character of the program. Such a proffered increase may also elicit larger contributions from other nations and facilitate the necessary effort by the United Nations to strengthen the administration of the Expanded Program of Technical Assistance by providing stronger coordination at headquarters and better integration of activities at the country level."

In this connection it is significant to note from recent press reports that the Commission of the European Community has suggested, as a means of achieving a wider degree of cooperation, that the community should propose to the United States and Britain that they should hold regular consultations with other countries and international institutions for drawing up agreed programs of assistance to underdeveloped countries.¹⁷ Again, the multilateral approach seems likely to be reemphasized in the plans, which are being developed for an International Development Association. Perhaps we are on the eve of a further step forward towards increased multilateral action.

Counterpart Personnel and Fellowships

The essence of technical assistance is "to help countries to help themselves." From this aspect the technical assistance expert should be a temporary adviser, one of whose major aims should be to "work himself out of the job." This conception is inherent in all forms of

¹⁶ See Footnote 13.

¹⁷ "London Times," October 1, 1959.

technical assistance, whether multilateral or bilateral. But the success of the expert in working himself out of his job involves the need for ensuring that his work is carried on by competent successors trained or recruited locally. This objective is responsible for the dual policies of insisting on the provision of counterpart personnel and of financing technical assistance fellowships for the benefit of trainees, or as they are termed by ICA, foreign participants.

How far are these two policies achieving their aims. No hard and fast rule can be laid down as to the number of counterpart personnel which should be provided by the recipient country. Clearly some projects may require more counterparts than others. Moreover, what is perhaps equally important is the quality of the personnel allocated to the expert. Based on the experience of over 1,000 experts covering projects in all major fields of activity in EPTA, there were 17% of cases where no counterpart was provided and 12% where the counterpart provided was considered unsatisfactory.¹⁸ The equivalent figures for agriculture and industry (which were not recorded separately) were slightly better, i.e. 14 and 10% respectively. Given the fact that in some exceptional instances the nature of the project may not have required counterpart personnel, these results can hardly be considered satisfactory, for they imply that in nearly one-third of all projects and in nearly a quarter of the agricultural and industrial projects counterpart personnel were either lacking or not up to standard. The effects of this on the efficiency of the technical assistance program are three-fold: *First*, it prevents the achievement of a lasting result in "helping countries to help themselves"; *second*, it is apt to lead to the ineffective use of experts, who may either find themselves unable to implement their assignments effectively, or alternatively be forced to act, in effect, as government officials instead of advisers; and *third*, it may involve retaining experts for unduly long periods in the same assignment, and consequently remove that element of flexibility from a considerable proportion of the whole technical assistance which is essential if the limited resources are to be shared equitably among recipient countries. In this connection "resources" implies not only available funds but even more the limited reservoir of expert personnel. And this reservoir is perhaps even more limited in agriculture (and particularly in those aspects of agriculture where underdeveloped countries need most help) than in other fields of technical assistance.

Added to the shortage of trained manpower in the agricultural field is the relatively low recruitment of agricultural trainees from

¹⁸ See Footnote 5.

underdeveloped countries. It is not possible to lay down any universally applicable ratio between the number of experts employed and the number of fellowships required. Circumstances differ from country to country and project to project. Nevertheless an examination of the available figures indicates certain marked differences between agriculture and other fields of activity.

If one takes the three major technical assistance agencies (i.e. ICA, EPTA, and the Colombo Plan) the total number of fellows (including ICA foreign participants and Colombo Plan trainees) in subjects other than agriculture indicate that there are at present about 4,000 experts to 8,000 fellows. In contrast the corresponding figures for agriculture are about 2,000 experts to 1,500 fellows.* These represent ratios of about two fellows to each expert in non-agricultural fields and four experts to every three fellows in agriculture,—nearly a four-fold difference. Again taking the EPTA figures alone, while the ratio in agriculture is three experts to each fellow, the ratio in medicine is one to one,—and this latter figure is still further enhanced by the fact that on its regular budget WHO carries two fellows to each expert. In this connection it is also significant to note that, whereas WHO is able to award over a thousand fellowships on its regular budget, the Food and Agriculture Organization has the resources to award twelve.¹⁹

This uniformly low proportion of fellowship training in the agricultural field is confirmed by reference to UNESCO's figures on students studying abroad. Of 128,000 foreign students studying in 44 recipient countries, only 4,800 were engaged in agriculture.²⁰ Such figures reflect what appears to be a general trend in both developed and underdeveloped countries to concentrate on disciplines other than agriculture (underdeveloped countries notably on medicine, engineering and the law) on the assumption, presumably, that foreign training in agriculture is either inappropriate, unnecessary, or of minor importance.

In regard to underdeveloped countries this view, at least, is clearly erroneous and demands rectification. I might note that an attempt to remedy agriculture's position is one of the objectives in FAO's recently issued Forward Appraisal.²¹

¹⁹ See Footnote 8.

²⁰ Study Abroad. UNESCO, 1956-57.

²¹ Forward Appraisal of FAO Programs, 1959-64. Report to the Economic and Social Council. FAO, Rome, 1959.

* For comparative figures consult references for footnotes 3, 5 and 9.

Expansions in Agricultural Assistance

While the foregoing facts indicate the urgent need for increasing the number of fellowships in agriculture, the broader questions still remain. What proportion of the present total technical assistance effort goes to agriculture? Is that proportion adequate? What should be added and in what directions?

In 1955 the share of EPTA's projects which fell within FAO's field of competence was just under one-third of the total expenditure on EPTA field programs, amounting to about \$6.7 million. By 1958 the actual allocation had risen to about \$7.7 million, but the proportion had fallen to about one-quarter. Moreover, during this period costs per expert have risen, and the resources in experts are now both relatively and absolutely less than five years ago. It is true that the number of experts financed from FAO's share of EPTA funds is still the highest among all the UN Specialized Agencies, but when experts financed from the agency's regular funds are included, FAO's figure is substantially lower than that of her sister agency, WHO—a total of 722 experts against 946. Yet without in any way detracting from the value of WHO's work in terms of human welfare, it is pertinent to note that successful measures for reducing mortality and morbidity in underdeveloped countries carry in their wake substantially increased demands for food—and for clothing—both of which fall within FAO's field of competence. It would seem clear that a substantial increase in FAO's share of technical assistance—both relative and absolute—is necessary to redress the balance.

ICA's technical assistance program does reveal this desirable trend. The latest figures show a ratio of 867 experts in this field of food and agriculture to 334 in the field of health and sanitation—perhaps the natural reaction of a great producer of primary products in recognizing the outstanding importance of food production to both economic and social betterment.

But if the need for such an increase in agricultural technical assistance is accepted, in what directions should the program be expanded? Should expansion follow the existing pattern, or should there be some new orientation? In the past such assistance has been largely concentrated on providing the technical know-how to improve primitive and inefficient techniques of agricultural production. It has, however, become increasingly evident that, unless the recipient countries are themselves able to establish efficient administrative and advisory services, and where necessary to alter their infra-structure to conform to improved techniques, such technical know-how will fail to spread widely and produce its full impact. For this reason in

FAO's own Forward Appraisal emphasis has been placed on expansions in the field of government services to agriculture and of social and economic institutions, including agrarian reform. This trend, primarily intended as a guide to future expansions in the organization's regular program, applies I believe with equal cogency to the technical assistance program. Indeed, its validity is borne out by the Technical Assistance Board's recent report that the greatest single cause of results below expectation was the "lack for adequate national administrative and technical services, which hampered close and prompt follow-up of project activities."²² From this aspect it is a happy augury that among ICA's manifold training activities, the most substantial increase in the past year has been in the field of public administration.²³

I have tried in this lecture to put before you not only some of the factual details regarding technical assistance in the field of agriculture, but to raise some of the issues which I feel we shall all have to face in our forward thinking on the subject. Some are obvious, some are hackneyed, some border on the controversial. But I trust that the material and arguments presented will at least have provided food for thought as well as for discussion to those attending this lecture, and I dare venture to hope that a few of the ideas which I have thrown out may ultimately furnish, at the appropriate time and in the appropriate forum, a useful basis for constructive and coordinated action.

²² See Footnote 5.

²³ See Footnote 11.

SEMINAR

Technical Assistance Programs in Agriculture — International and Regional

Participants

Panel: David Heft, Organization of the American States; A. H. Moseman, Rockefeller Foundation; Peter Reid, International Bank; Norman C. Wright, Food and Agriculture Organization; O. V. Wells, Agricultural Marketing Service, U. S. Department of Agriculture (moderator).

Summary and Background

With technical assistance, people can improve agriculture at a rapid rate so long as the suggested changes are closely related to immediate needs and fit their cultural patterns. The rate slows down as the technology becomes more complex. For instance, the proper combination of improved crop varieties, fertilizers, and pesticides requires managerial skills that come with training. Widespread adoption of these practices depends on extension work. The rate of change that can be achieved varies from country to country and from stage to stage of their development. These were among views expressed by participants in the seminar following the lecture of Dr. Norman C. Wright, Deputy Director-General, FAO.



Following Dr. Wright's afternoon speech, panel members explore major points. Left to right: A. H. Moseman, Ralph W. Phillips (reporter), David Heft, O. V. Wells, and Peter Reid.

Among points discussed were: (1) The forces bearing on the rate of change; (2) the prospect of underdeveloped countries moving into markets with farm products now in surplus; (3) the alternatives to technical assistance; and (4) coordination of technical assistance efforts.

The bases for agricultural change and development in an expanding economy are: (1) Physical resources; (2) technical skills; (3) market opportunities; and (4) institutional factors, including organizational setup, land tenure, technical services, and credit.

The construction of dams for irrigation, farm-to-market roads, and other structures serving the whole economy are often essential to agricultural improvements. Land reform in its broadest sense is vital to change in most underdeveloped countries. And yet the road to its achievement is likely to be a long one, beginning with more efficient primitive methods of farming in the present land tenure system and leading through the gradual processes of education and changing attitudes. Often the key to speeding up the rate of change in agriculture is found in the training of officials in public administration. For instance, a short cut that paid off well in India, was in travel grants to selected officials in the ministry of agriculture in two states. The grants made it possible for the officials to spend several months in the United States making a study of the Land-Grant College system and Federal-State network of agricultural research, and the many-sided approach needed to improve farm technology.

The question of competition from developing countries for markets already crowded with surpluses is being met by those who plan and administer technical assistance. Projects are selected that will strengthen the resources of the people receiving assistance for increasing their own food production. However, no measures have been devised for preventing the countries from turning the resources to the production of export crops if a competitive advantage for doing this exists.

Even so, the United States and other countries with highly advanced agriculture have no alternatives to giving technical assistance.

World needs are great. Even at its most, successful technical assistance is bringing change gradually. The task calls for the combined forces of all—of FAO and other international organizations, of OAS and similar regional groups, of ICA and like programs of the highly advanced nations, and of the foundation and other agencies working within these nations.

Each has something distinctive and of great value to offer the developing nations of the world. How each can supplement the others was brought out by the panel participants.

Statements by Panel

Mr. Heft said that those who direct OAS technical assistance for agriculture and rural life believe that investments in the training of people pay the highest returns on limited funds.

The OAS is granting funds for advanced studies in all agricultural disciplines and in other fields of study that influence rural life.

Three out of four of almost 4,500 people who have received grants to study at one of the Latin American centers or abroad have specialized in work associated with the improvement of rural life.

Along with training the men and women who will do extension and conservation work, staff the livestock regulatory forces, and do research, the OAS sends missions to member countries that request them for help on problems of immediate concern.

The 10 missions in 1959 were requested by Brazil, Ecuador, Peru, and Haiti, for help in setting up farmer cooperatives, for research in animal pathology, for guidance in rural electrification, the construction of rural schools and rural homes.

Mr. Heft observed that experience in the OAS shows that the multilateral approach to technical assistance is the least expensive. It assures more cooperation from the country receiving help than the bilateral approach. With this in mind, Latin American leaders are seeking to meet 51% of the costs of OAS and in so doing reduce the share of U.S. contributions.

The unique contribution of the Rockefeller Foundation to advancing agricultural technology is in long-time research on agricultural problems distinctive to the host country and in the creation of truly international research centers staffed by able young scientists from around the world.

Dr. Moseman stated that the training of foreign students in agriculture included scholarships for training to the M.Sc. and Ph.D. level as well as post-doctoral fellowships. Selected grants are being made to universities and libraries in countries where the patterns of culture are closely related to those of students from the other countries who study there. For instance, the foundation recently furnished grants to the University of the Philippines and the University of Hawaii that will enable students from Asia to take advanced studies at those institutions.

Mr. Reid said that the International Bank is, of course, a financing institution and its technical assistance program is a supplementary rather than a primary activity. Its direct technical assistance falls mainly within two fields: Helping countries to draw up long-term development and investment programs, usually accomplished through

general survey missions, and; assistance in the creation and operation of credit institutions and in particular development banks. Significant indirect technical assistance is also given as part of the appraisal and supervision of loan operations. We have felt our technical assistance to be unusually effective, partly because of the banker-client relationship, partly because member countries recognize that the bank will finance only projects which it considers sound and partly because support from the outside frequently assists the introduction of desirable measures for the improvement of agriculture.

Discussion

Dr. Moseman cited the progress in Mexico as a striking example of the fruits of technical assistance. In 1943, when the Rockefeller Foundation began research on basic food crops and educational help, Mexico imported over 10 million bushels of wheat. Crop yields of 10 bushels an acre met only 45% of the nation's needs for wheat.

By 1956, research had provided improved varieties and the technology for growing them and farmers had been trained to use the technology. Mexican wheat growers were producing 22 bushels to the acre, and plantings had been increased from 1,250,000 acres to 2,100,000 acres. Disease resistant varieties were used on 9 acres out of 10. Wheat yields were enough for domestic use.

By 1958 Mexican farmers were producing enough corn for the dietary needs of their people and had some left over for use as poultry and livestock feed. A recent FAO survey shows that Mexican agricultural production has been rising at the rate of 7% each year, the highest of 26 countries surveyed.

The final point considered by the seminar was the need for better coordination of technical assistance programs. Dr. Wright stressed the need for a clearinghouse of information. He sees coordination as most effective when it is based on country planning and programming and brings in all national departments and agencies.

Dr. Moseman noted that those who plan and direct technical assistance can cooperate with other agencies when they know what each agency is doing and are aware of the strengths and limitations of the agencies they seek to supplement.

It was agreed that an essential part of the task of technical assistance in the international age of agriculture is to knit the forces giving assistance more closely together.

Dr. Max Myers has been Administrator of USDA's Foreign Agricultural Service since May 2, 1958. He was formerly Director of the Agricultural Experiment Station and Head of the Economics Department at South Dakota State College. A native of Ireton, Iowa, he was reared in South Dakota, and farmed from 1931 to 1934 near Gregory, S. D. He holds a B. S. degree from South Dakota State College and M.S. and Ph.D. degrees from Cornell. He is the author of numerous agricultural publications and a member of several U.S. and foreign economic organizations.



WORLD AGRICULTURAL MARKET—OPPORTUNITIES AND LIMITATIONS

Max Myers

We who concern ourselves with agriculture face a challenging opportunity. For the first time, mankind has a chance to win the continuing battle against hunger. It is only a chance as yet, a mere possibility, but there is much that is encouraging. For example, world agricultural production—stimulated by improved technology in all countries—has risen at a somewhat faster rate than the population. As a result, the difference between “enough” food and “not enough” food—on an overall basis—has narrowed.

This opportunity imposes on us a rather awesome responsibility. No longer can men excuse an unwillingness to do something about human needs by saying that hunger, somewhere, is inevitable. Now, more than ever before, the problems of world food supply must be approached by practical men in practical ways to attain a goal that is possible, even though difficult and distant.

World Food Situation—Perspective

Before we explore market opportunities and limitations, let's take an overall look at the world food picture.

One part of the picture is immediately apparent: There are plenty of consumers. Today, the world's population is in the neighborhood of 2.8 billion.

Rough estimates indicate that world food production today is on the order of 1.7 billion long tons,* on a wheat equivalent basis, which, of course, provides a common denominator.

*Hereafter, whenever “tons” is mentioned, it means “long tons,” in terms of wheat equivalent.

It isn't generally realized, but most countries of the world produce most of the food and feed they consume. Overall, they fall short of producing their consumption by a little less than 10%. The very important difference—about 160 million tons—consists of world food and feed exports. Of these exports the United States ships approximately 35 million tons, or about 20% of the total.

Altogether this production permits the present world population to have an average per capita daily food intake of about 2,350 calories. This varies from about 2,000 calories in India to 3,100 calories in the United States.

For the purposes of this presentation, I am estimating first, the approximate amounts of food which would be necessary to raise the total food intake of the neediest people by an arbitrarily chosen number of calories without considering whether this would provide nutritionally balanced rations.

It seems reasonable to assume that, in the free world countries of the Far East, Latin America, North Africa, and the Middle East, about a fourth of the people—the ones who are in the lowest income brackets—fall short of food energy requirements. If this part of those populations, numbering about 270 million people, were supplied with an additional 200 calories a day (which would help improve nutrition), foods equivalent to 6.7 million tons of wheat would be required.

If we were also to allow 100 calories per person per day for the 200 million in the free countries of the Far East who fall in the second lowest quarter of the income brackets, that would mean, on a wheat equivalent basis, an additional 2.4 million tons. However, this does not include the Far East part of the Communist world. A similar estimate for these areas is 6 million tons, making the combined total 15 million tons.

Now remember that world food production is 1.7 billion tons. These 15 million tons of food, which would help improve body energy among the poorest-fed segment of the world's population, would amount to about a 1% increase over present production. That very small margin—the difference between meeting and not meeting this assumed level of energy requirements—is an indication that we can, and probably some day shall, eliminate hunger from the whole world.

Increase of 200 or 300 calories would not keep the world's people "fat." Nor would calorie intakes of that order provide diets which would prevent the "hidden hunger" that comes from nutritional deficiencies. It would probably require at least another 65 million tons, or another 4% increase in the present world food total to bring us

to optimum nutritional levels. But raising the calorie intake even a small amount represents a step in the right direction.

When we talk about necessary increases in total food supplies, we must keep in mind one paramount fact: Population also continues to expand. Therefore, there can be no letup in efforts of countries having big populations and food deficits to push agricultural production higher.

Increased availability of food in recent years, along with improved medical care and sanitation programs, has meant lowered death rates in the heavily populated countries of the world. In India, for example, this has had the effect of raising the net increase in population from $1\frac{1}{4}$ to a new rate of a 2% increase each year. This means that India, with a present population of 400 million, will have 8 million additional people to feed next year instead of 5 million. Likewise, in Pakistan, Burma, and Malaya, population is outstripping the increase in food production. For the world, it is estimated that the increase is 40 to 50 million annually. That's equivalent to adding another nation the size of France to the world's population each year. It also means that on the same basis mentioned earlier, approximately another 27 million tons increase in food per year would be required.

The foregoing figures are, of course, rough approximations. Probably they err on the conservative side. Other, perhaps more accurate estimates can be substituted without significantly changing the relevant conclusions.

It seems to me that certain valid and useful generalizations can be drawn from even rough estimates. The difference between world food production and what is needed to feed the population reasonably well is small in percentage terms. However, the tonnages required and the problems to be solved in obtaining and distributing such tonnages are not small in any sense of the word.

It also seems to me that in the long run the big part of the necessary increases must be obtained relatively close to the points of consumption. This emphasizes the importance of programs that are designed to increase production in the areas of heavy population and food deficits.

From a world standpoint, approximately 10% of needed increases in food would involve international trade in agricultural products. This would require marketing of some 160 million tons currently and about 230 million tons within 15 years. Since increases in food production in deficit areas probably will come slowly, the proportion to be moved in international trade in the next few years probably would have to be larger than 10%.

The U.S. Situation: Exports and Stocks

The United States has an important interest in the current and potential world markets for agricultural products. In the past 3 years, the value of world agricultural trade, in terms of 1952-54 prices, has averaged about \$27 billion. The value of U.S. agricultural exports has averaged more than \$4 billion annually for the same period. That's a higher average than in any other 3-year period in the Nation's history—equal to about 15% of the world's total.

The United States today is exporting the output from about 40 million acres of cropland—equal to all the harvested acreage of the Rocky Mountain and Pacific Coast States. Production from one out of every eight acres is going abroad.

Here's another measure of the program's size. Our exports in 1959 would fill about 800,000 freight cars—enough to make two solid freight trains stretching all the way across the country from San Francisco to New York City.

U.S. exports go all over the world. The largest shipments go to the United Kingdom. Other big customers, in order of size, are Japan, West Germany, Canada, India, and The Netherlands.

The leading U.S. "export" crops are wheat, cotton, tallow, rice, soybeans, tobacco, lard, and feed grains.

About 65% of the total value of U.S. agricultural exports in 1958-59 represented commercial sales and about 35% special export programs. These agricultural exports help to bolster farmers' prices and incomes, and strengthen the overall national economy.

At the same time, overseas shipments of food and fiber help to promote American foreign policy in two ways. First, our farm products are helping to build up the strength of the free world, not only by meeting immediate urgent needs of friendly foreign people, but also by promoting economic development. Second, they help to create among millions of free-world people a humanitarian "image" of the United States, which is an asset of enormous value in a period marked by international tensions of all kinds.

The United States has on hand about 55 million tons, in wheat equivalent, of surplus grains. At present rates of production, our annual exportable grain surplus above what can be exported commercially is about 30 million tons.

Other major grain exporting nations, excluding the USSR, have surplus grain stocks of about 20 million tons, plus an anticipated annual surplus production above what can be exported commercially of about 3 million tons. The surplus stocks are mostly in Canada. The

anticipated future excess production will be largely in Canada, Australia, Argentina, and France.

It would appear that the world's currently unallocated surplus grain stocks total about 75 million tons, and the anticipated annual excess supply is on the order of 33 million tons.

A Paradox and Problems

The simultaneous existence of food deficits and of food surpluses in the world is a real and troublesome paradox, which has given rise to several misconceptions.

The notion that there are millions of starving people in the world who could use our food if we would only release it. That's Misconception No. 1.

There have been no reports of widespread starvation anywhere in the world in recent years, although there sometimes are isolated pockets of famine in Asia and elsewhere. What does exist on a big scale, especially in the less-developed areas, is "under nutrition." Diets are not down to the starvation level, but they are so substandard as to mean chronic undernourishment for millions of people. These diets need upgrading. That is one aim of President Eisenhower's Food for Peace program.

We can export all our surpluses. That's Misconception No. 2.

It is easy to become enthusiastic about exports, as a solution to our marketing problems. There are even those who say, "If a \$4 billion export program is good, an \$8 billion operation is twice as good. Let's hold a bargain sale and export all the stuff we don't need here at home."

There are strong forces working against an expansion of trade in farm products. These forces affect world as well as U.S. trade.

Let's consider trade restraints. Most of the countries of the world have erected protective devices of one kind or another—tariffs, quotas, embargoes, bilateral arrangements, and the like. Despite efforts, and some success in getting liberalization, many of these barriers still exist—both in underdeveloped and economically developed countries, even though additional quantities of reasonably priced food and fiber are urgently needed in some countries and would greatly improve standards of living in others.

Trade restraints are erected for many reasons. A heavily populated country, whose agricultural resources are inadequate to meet all the needs of the people, may still impose quotas on certain food imports to protect domestic farm prices. Another country may limit imports so as to conserve scarce foreign exchange. Even the United States, under Section 22, Agricultural Adjustment Act of 1933, con-

trols imports of agricultural commodities that interfere with Department of Agriculture programs such as price supports, marketing agreements, and the like.

Every exporting country tries to persuade other countries to lower their trade barriers—trade liberalization, this is called. The United States also works continuously for liberalization. This is done through diplomatic channels; periodic meetings under the General Agreement on Tariffs and Trade (GATT); and activities of other international organizations, including the International Monetary Fund. It is a rather slow process, yet it is an activity which permits no resting on the oars.

An important factor, as we consider possibilities of expanding our own agricultural exports, is the continued increase in farm production outside the United States. Everywhere farmers are learning how to step up production. Some countries have been able to reduce their food imports; those that do import can shop around because there are other sources of supply.

There is another restraining force, too: The American policy of slowing down our exports if they might disturb world prices or interfere with normal commercial marketings—either our own or of friendly foreign countries. International application of the Golden Rule is involved in this self-imposed “code.” We are opposed to operations by foreign countries that would disrupt markets; by the same rule, we are determined to act responsibly in our own operations.

There are some other factors in this situation. American agriculture does a big cash business in the world market. Obviously, then, any American action tending to lower world market prices would only hurt our own cash receipts. Furthermore, there is a wish in the United States to see the community of free nations remain strong—economically as well as militarily.

Those who suggest the easy export route might well consider whether we can “out-export” the productive capacity of U.S. farmers. As American farmers continue to take advantage of mechanical, chemical, and biological advances, it seems to me that for many years to come they will be able to produce beyond our normal capacity to consume domestically and to export. For that reason, moving all our exports to foreign shores in one fell swoop—assuming that that could be done—still would not solve the problem. I daresay that if the United States suddenly found itself free of heavy commodity surpluses, we probably would soon be right back where we started.

If we can't sell our food, let's give it away. That's Misconception No. 3.

Substantial quantities of food already are being donated through

the people-to-people approach of the voluntary foreign relief organizations and the country-to-country operations of ICA. Since 1954, for example, foreign food donations of the United States under Titles II and III, PL 480, have had a cost value of \$1.8 billion. In most countries, current donations represent just about all that existing charitable facilities can handle.

In many less-developed areas, it actually is easier to sell food than give it away. The answer to this seeming contradiction is that in every country of the free world it is the commercial distribution system through which food flows to the people, but most less-developed countries lack distributive facilities and organizations through which additional large quantities of donated food can be channeled to the needy.

Transportation is another problem. Railroads may link the larger cities and towns, but there are few good roads in rural sections. All too often villages are connected by nothing better than foot trails.

Lack of voluntary organizations of people, however, is probably the most serious handicap in distributing donated foods. In one Asian country, U.S. voluntary agencies had to suspend operations for many months when they found themselves unable to obtain any local assistance in distributing the donated commodities. The most effective distribution outlets in the Far East have been schools, hospitals, health centers, and other institutions.

Despite these misconceptions, despite the very real obstacles to movement of food to the needy, despite the strenuous efforts now being made to increase our exports, the paradox remains—the paradox of food surpluses in a world where hunger is a grim fact of life for millions of men, women, and children. We cannot comfort ourselves with the thought that we are doing everything possible. The question remains: “Are we—really?” It’s a question, actually, that involves more than humanitarian sharing, important as that is. Economic benefits and promotion of our national foreign policy also depend to a very great extent upon the way we exploit our opportunities to expand trade in farm products.

Opportunities for Expanding World and U.S. Trade

Experience shows that no single, easy, or hasty measure will increase world trade in food. Further successes will be attained as they are now being attained—by steady, aggressive efforts on a broad front, overcoming many individual obstacles, exploiting many small gains, in the direction of major goals.

One thing has become abundantly clear in the whole area of foreign policy—the United States cannot “go it alone” economically,

any more than it can play a lone hand politically and militarily. Cooperation of the other free world countries is needed. For that reason, the United States has asked other free world countries to join hands with us in making greater use of food in the interests of world peace.

Cooperation has been forthcoming. Last spring, following President Eisenhower's initial Food for Peace proposal, representatives of Argentina, Australia, Canada, France, and the United States, met in Washington to discuss effective ways of using food in the field of international affairs. At these meetings, also attended by representatives of the FAO, the emphasis was placed on wheat. That was a logical decision, for wheat is the food commodity in greatest supply and is easily handled in export channels. Its use as a food by the world's people is well-established.

Among measures discussed at the meetings, a few showed particular promise. These included: Establishment of reserves to meet emergencies; increased donations for school lunch, institutional, and refugee feeding; wheat market promotion; and use of wheat for economic development.

Continued consideration of these and possibly other food distribution moves has been assured through establishment of a Wheat Utilization Committee, composed of members from the same wheat-exporting countries that attended the Food for Peace meetings. The committee has drawn up guidelines to minimize the effect of wheat sales for foreign currencies on commercial wheat markets built up over the years by the traditional wheat-exporting nations.

Economic development must take place if permanent results are to be achieved in the less-developed countries. In these countries, people have inadequate diets because their purchasing power is low. And their purchasing power is low because there is not enough industry to supply employment, not enough fertilizer and irrigation water to produce good crop yields, not enough schools to teach the people to help themselves. Handouts of more and more food is not the answer. A new upgrading cycle needs to be created in which new development generates more jobs—which puts more money in pockets—which enables people to buy the things they want—which, in turn, brings additional new development to supply the expanding demand.

Economic development is an area in which well-developed countries can lend a hand. As a matter of fact, if economic development is to proceed rapidly, the other industrially developed countries *must* cooperate with us.

Such economic development will pay rich dividends to the countries financing it, I am convinced. It eventually should mean expanded

markets for countries producing industrial goods, just as it should mean bigger markets for countries turning out farm products. A start has been made in the way of economic development but there should be acceleration.

The United States has been using food in the interests of peace for 40 years. Heavy shipments of farm products are doing much right now to promote peace and stability throughout the world.

Among current U.S. operations are foreign currency sales under Title I, PL 480, which represent for us an unusual but effective opportunity to use surplus food for peace. We turned to foreign currency sales a few years ago when we found that many friendly countries who needed our products were unable to buy them. It wasn't that the United States was short of farm products—far from it. Neither did the difficulty trace to prices, because we had reduced export prices of its surpluses. The trouble was dollars—or, rather, a lack of them. Under existing laws and regulations, we could sell our excess products only for dollars. Countries lacking dollars couldn't buy.

Title I of PL 480 makes it possible for friendly but dollar-short countries to use their own currencies in purchasing our surpluses. The volume of sales made under the program is a good indication of the need for it. From 1954 through the middle of 1959, products having a market value of \$2.8 billion, or about 15% of our total exports, have been sold for foreign currencies under Title I. Exports under this legislation have included wheat, flour, corn and other feed grains, rice, cotton, tobacco, fats and oils, poultry, fruit and meats.

Keep in mind that foreign currency sales represent *extra marketings* for the United States and *extra consumption* for the recipient countries. That's because the bulk of the commodities sold for foreign currencies go to underdeveloped countries, which lack funds to buy in the world market. In the absence of a foreign currency sales program, the underdeveloped countries would be unable to buy as much food and fiber as at present—and American farm product surpluses would be larger than they are now. The whole operation fits in with President Eisenhower's Food for Peace concept.

Barter is also helping to bridge the gap between U.S. abundance and foreign needs. We have "swapped" substantial quantities of agricultural products in recent years for such foreign-produced materials as industrial diamonds, metals of various kinds and ores. Many of these materials have gone into the Nation's strategic stockpile, from which they can be drawn in case of emergency. Since 1954 barter exports have had a value of a little over \$1 billion, or about 5% of total agricultural exports.

Donations of U.S. products have helped to feed school children,

disaster victims, refugees, and other needy people throughout the world. Donations since 1954 have had a value of almost \$1.2 billion, or approximately 5% of total farm product exports. Foreign donations are handled through Government agencies, international organizations, and voluntary U.S. relief groups.

In carrying on "special" programs, the United States tries to prevent interference with normal commercial markets of wheat or other foods. That is the policy, not only with respect to U.S. commercial marketings, but also with the commercial trade of friendly foreign nations.

Commercial markets have always constituted the principal channels through which supplies from surplus-producing nations have met the needs of deficit countries. This "normal" movement of food is in line with the Food for Peace idea because commercial sales in regular market channels help to close the gap in food supply and food demand—which is the objective of all types of food export programs.

In the administration of U.S. export programs, major emphasis is placed on commercial sales for dollars. These represent the traditional and the most effective way of moving products from producers to consumers. Reflecting this emphasis, sales for dollars since 1954 have had a value of \$14 billion or about 65% of the total dollar value of agricultural exports.

Part of the job of emphasizing dollar sales lies in keeping prices of U.S. products competitive in world markets. It will be remembered that U.S. support prices of wheat, corn, cotton, and several other price supported commodities are higher than "world" prices. For U.S. exporters to obtain these commodities in the United States and sell them abroad at competitive prices, the U.S. Government must make payments to the exporters in cash or in kind on products bought in the open market and exported—or sell products out of Government stocks for export at competitive world prices. With wheat, for example, the export payments are ranging between 55 and 60 cents a bushel. On cotton, the payment amounts to 8 cents a pound.

The Foreign Agricultural Service is carrying on vigorous operations to promote commercial sales of U.S. farm products overseas. Most of this work is done in cooperation with U.S. trade groups. For example, the American Soybean Association and the Soybean Council of America are cooperating with the Department of Agriculture on market development projects in Asia, Europe, and the Middle East. The Great Plains Wheat Market Development Association, representing the Great Plains area, and Wheat Associates, on the West Coast, maintain field offices in Europe, South America, and Asia, to promote U.S. grain.

In Japan, one cooperative market promotion project is based largely on use of "kitchen buses," which visit all parts of the country to demonstrate meals featuring wheat and soybean products. Japanese housewives are shown the types of food which can be readily prepared from flour and soybeans and the role that such food plays in relation to other available local foods.

Cooperation between FAS and the American poultry industry has been creating market opportunities for U.S. poultry in Europe. Sales of U.S. broiler chickens to Switzerland, for example, increased from a negligible volume in 1954 to an estimated 16 million pounds in 1959. Broiler sales in Western Germany have risen sharply and a steep uptrend in turkey shipments also is expected.

International trade fairs have become an important feature of overseas market promotion. In the past four years, the United States has participated in 40 fairs, in 16 countries. Through these exhibitions, some 20 million foreign consumers have seen the wide variety and high quality of U.S. farm products and foreign importers have obtained necessary information on prices and availability.

U.S. sales of farm products for foreign currencies are creating long-range marketing opportunities through economic development. Since 1954, almost half of the foreign currencies received for U.S. surplus commodities have been loaned back to the importing countries for economic development. In India, PL 480 funds are helping to finance a vast program of river valley development. In Spain, the Government is using PL 480 generated money for irrigation, reforestation, and construction of electric power facilities. Yugoslavia is using PL 480 loans for industry, mining, transportation, power stations, and similar projects. Eventually this development will create jobs and purchasing power. And purchasing power will mean demand. The United States, with much to sell, should benefit.

As you can see, there is much that is favorable in the world, as well as in the U.S. agricultural export picture.

Now, *in conclusion*, I want to summarize very briefly the ground I have covered. I have touched upon the world food supply situation, with special reference to needs of the underdeveloped countries. I have made the point that the gap between "enough" and "not enough" is rather narrow, and that there is a chance to close the gap. In the case of U.S. food exports, I have pointed out that our programs have two practical objectives. One is economic. It is aimed at strengthening U.S. farmers' prices and incomes directly and indirectly. The other goal is in the field of foreign policy. In this area, we are using our exports to strengthen the free world by meeting immediate needs and promoting long-range economic development. Friendship for the

United States and respect for democratic institutions have been satisfying "byproducts" of our efforts to use food in a humanitarian way.

It is clear that opportunities exist for making greater use of exports by the entire free world as well as by the United States. At the same time, as I have indicated, some real and difficult problems exist.

Are U.S. export opportunities cancelled out by the problems? By no means.

We can be moderately optimistic about the future of our U.S. agricultural export program. We are efficient producers of farm products. We have the merchandising know-how. We have potential customers. The big problem is how to use our advantages in practical ways to bridge the gap between our surpluses and world needs.

We shouldn't expect miracles. Trade will not develop by itself. It must be a carefully planned effort by private trade interests and government. We must build trade methodically—and continuously. We must concentrate on exporting quality products. We must keep our prices competitive in world markets. We must have a willingness to "beat the bushes for business" as successful businessmen have done since the beginning of time. We must have a willingness to accept imports, so that our foreign customers can earn the exchange with which to buy our products. We must be willing to face and solve domestic agricultural issues, because these eventually affect our export activities.

In a global sense, there must be a broadened use of modern agricultural productivity in meeting world food needs. On the one hand, there must be increased sharing of capital and know-how to stimulate economic development and increased agricultural production in the less-developed countries. On the other hand, there needs to be increased sharing by the food-surplus nations with the food-deficit nations.

Actually, the free world has no alternative to solving the problem of hunger. But the free world should not look for alternatives. In helping to eradicate hunger, there are countless opportunities. There are opportunities in business terms, in political terms, in humanitarian terms. With opportunities come responsibilities, of course. Some of these responsibilities are difficult and complex. But we can and will face up to them. In so doing, we will be writing one of the greatest chapters in all the world's history.

SEMINAR

WORLD AGRICULTURAL MARKET—OPPORTUNITIES AND LIMITATIONS

Participants

Panel: Karl Brandt, Member of the President's Council of Economic Advisers; Homer L. Brinkley, National Council of Farmer Cooperatives; Theodore J. Hadraba, Department of State; Clarence D. Palmby, Commodity Stabilization Service, U.S. Department of Agriculture (moderator).

Summary and Background

U.S. agriculture, with its "fantastic ability to produce," also has an "enormous capacity to export." But the achieving of greater exports calls for: Recognizing that the foreign market is a bona fide market, not a dumping ground; doing more to develop foreign market sales opportunities; supplying the right goods at the right prices; helping less developed countries to progress and become better customers; giving other countries, including the developing countries, an opportunity to sell in the world market; keeping trade barriers to a minimum; letting private trade do the export job, with government assisting; depending less on price support programs as the solution to the American farm problems. This summary reflected the



Dr. Max Myers, standing, makes a point on world agricultural marketing to panel members. Seated: Karl Brandt, Theodore J. Hadraba, Clarence D. Palmby, Homer L. Brinkley.

composite views of participants in the seminar session on "World Agricultural Market—Opportunities and Limitations."

Approximately 60 persons attended the seminar, and they included officials of the Department of Agriculture, the International Cooperation, the State Department, and farm organizations. A question-and-answer period was preceded by opening statements by each of the panel members.

Statements by Panel

Dr. Brandt made the point that "American agriculture has an extraordinary capacity to compete in world markets, and should utilize its capacity to export where our production, in fair and equal competition, has the comparative advantage of better quality, different and preferred products, or lower costs of production." He said that American agriculture, which "is the envy of the world in its technological achievements and performance" has the capacity to compete in a number of commodity fields. In his view, American agriculture needs to come to grips with some of the key elements of how it can attain the position of exporting a greater value of farm products under a system of comparative advantage, with such products moving to areas where the purchasing power exists and increases as the economy expands and at prices that people are willing to pay in the effort to improve their diet.

Among questions that might be discussed, he mentioned: (1) Are the greatest opportunities for expansion of agricultural exports in the less developed countries or in the industrialized countries? (2) In stressing the export of large amounts of raw materials such as grains, which we have in surplus, are we paying too little attention to opportunities to export increased amounts of semi-finished, high value products such as animal protein foods, including meat and other livestock products (for which many other countries have only limited ability to produce because of shortage of investment capital)?

Mr. Hadraba said that the liberal trade policy of the United States "is one of the cornerstones of our foreign policy and is consistent with our whole general political philosophy—namely, that that government is best which governs least and government interference in our economic life should be limited."

In his opinion, imports should not be regarded as a "burden" for the reason that "imports do fundamentally provide the basis for the financing of our exports; without imports there couldn't be exports."

Mr. Hadraba indicated that a liberal trade policy promotes the economic strength and unity of the free world. Members of the free world, he said, can continue to be strong only as they have reasonable

opportunity to expand their trade. This is true of the United States; it is even more true of a good many other nations, including the smaller countries. Many such countries, he stated, are less diversified economically than the U.S. and must import a much larger share of what they need—which they can do only if their exports are correspondingly large. For many countries, trade with the U.S. is of far-reaching importance.

"If we refuse to trade with the underdeveloped countries," said Mr. Hadraba, "if we prevent them from finding outlets for their merchandise in this country, then they probably will turn increasingly to trade with the Communist countries.

"We can be secure and progressive, of course, only in a world that is secure and progressive. We can't be an island of wealth in a sea of poverty."

Mr. Hadraba concluded by noting that "the U.S. is strong because we don't have any barriers between the 50 States. One section of the country competes with another, we make various adjustments, and the U.S. is therefore a dynamic economy. I think we have to look at the world a little bit in these terms, too."

Mr. Brinkley recalled that five years previously he was a member of one of three trade missions that went to Europe, the Far East, and Latin America, for the purpose of studying trade opportunities and trade problems. He noted with satisfaction that some of the recommendations made by those missions have since been implemented—including a system for selling surplus farm products for foreign currencies, joint industry-government projects for expanding foreign markets, an improved system of export credits, easing of trade restrictions against U.S. farm products, improving the quality of U.S. agricultural exports, and more realistic technical and economic aid programs.

It is essential that such measures be taken to expand exports, he said, in order to find additional outlets for "the almost fantastic productivity of American agriculture." In his view, also, the problem of surplus production needs to be regarded not as a short term situation but one of fairly long term proportions.

Regarding economic development programs, Mr. Brinkley stated: "It was my own conviction that here are the future markets for agricultural production in this country and that we should be looking toward these areas of potential development not only from the narrow viewpoint of being able potentially to absorb some of our surpluses . . . but also we need to recognize that we cannot afford much longer the perpetuation of lack of sound economic development of such areas. I can see no reason why our surpluses in the interim cannot be a

form of capital. We cannot depend longer on dollars as the major source of capital in these countries."

Other advanced countries should lend a hand in helping the less developed countries, Mr. Brinkley said. "We've gone alone too long; there's need for other countries to join in."

In order to take advantage of improving foreign markets, the U.S. needs to pay considerably more attention to developing its marketing abilities, Mr. Brinkley said.

"One of the things I think we have not fully realized is that until recent years export markets, by and large, were considered to be dumping grounds, for price and quality. We have just, in the private sector, come to realize that the same principles and marketing techniques that pay off in our own markets can be made to pay off in foreign markets. People are about the same everywhere; they want the things that appeal to them. We need to know more about the techniques of marketing, of distribution, in these countries—and we're learning rather rapidly. At the same time, we need to find out a great deal more about the kind of marketing techniques that pay off in this country."

Mr. Brinkley was vigorous in asserting that as American agriculture searches for answers to its current problems, it will not find the solution in price supports.

"Quite a segment of American agriculture doesn't have any price supports. With adequate capitalization and equipment and know-how, they're doing fairly well. Remember this—it isn't just the matter of price supports; the important thing from the standpoint of the farmer who has something to sell is to have a home for it; and if the production of that commodity is in excess of what the market will take and if there's no place for it to go, then that very small amount can and will and does break the market on the rest of what he has."

Mr. Brinkley said that while he did not advocate elimination of the price support program with consequent risk of bankruptcy for many farmers, at the same time general preoccupation with price supports had resulted in insufficient attention being paid to "the vast array of other things that can be done in agriculture by farmers themselves through their own organizations—through their cooperatives, through use of the facilities of the Land-Grant Colleges and the Department of Agriculture—to better themselves.

"... I do want to insist that we begin here and in our own organizations and in agriculture as a whole to put some real brain work on this matter of how we can develop other ways in which we can do a job and maintain family living standards. That's going to require adjustments and readjustments. I don't think that we can say here

that the only way we can go is higher or lower or sideways with price supports."

Part of agriculture's answer, in Mr. Brinkley's opinion, lies in broader research.

"I think the things we have been most deficient in is not being alert and alive to that problem here in the Department of Agriculture, in the Land-Grant Colleges, in farm organizations. Although I pay my respects to my friends in the Land-Grant Colleges, for 100 years the major part of the research and extension has been on produce, produce, produce. It's like pulling teeth to get into marketing, distribution, grading, and quality control. We must move into it if we're to be competitive.

"Modern agriculture can't be geared to the research concepts of 50 or 10 or even 5 years ago. In my opinion we've got to develop some new concepts and a whole wide range of approaches to the problems of modern agriculture—and this is far beyond the range of the price support problem."

Discussion

Dr. Myers, who had given the afternoon lecture that set the stage for the evening seminar, was among those who participated actively in a question-and-answer session following the introductory statements. When asked to comment on the statements given by the three panelists, he replied that he agreed with practically all their conclusions, then added in good humor that he had hoped they would come up with a "quick, easy, and better way to solve some of our problems." However, he asserted, he had come to the reluctant conclusion regarding U.S. agricultural problems that "we just don't have a quick and easy way to get out of where we are, and we're faced with a very difficult problem of long-time piece-by-piece improvement."

With regard to a previous question of where are the greatest opportunities for expanding export markets, Dr. Myers commented that "We're exporting to the underdeveloped countries and we're working hard on cash markets in those with purchasing power. We look on the first as trying to help in a humanitarian way, as well as trying to build markets for day after tomorrow. We look on the second as cashing in on where the money is."

Also replying to a previous question regarding stressing exports of "starch" vs. stressing protein foods, Dr. Myers pointed out that the U.S. faces the fact that "we have the starch." He said that he agreed with the desirability of exporting higher value foods but said the hard facts are that "We've got a lot of starch and something has to be done with it."

Regarding the problems of encouraging a flourishing world trade, Dr. Myers suggested that "We will have to behave like world traders if we expect to be successful. In this country, it's going to take quite a lot of understanding on the part of a lot of people to accept some of the less palatable things that have to be done in domestic policy in accepting two-way trade."

Dr. Myers was asked by a member of the audience "How can we hope to go into the world market on a price competitive basis when we are not willing to produce on a free competitive basis at home?" To this he replied, "First, we are competitive on many more agricultural products than not. Second, on some of the price supported commodities, by using subsidies at tax-payers' expense, we get relatively competitive."

There was considerable discussion concerning the proper role of the U.S. Government in international trade. The prevailing opinion, as expressed by more than one speaker, was that the Government should be a "catalyst or coordinator" but not engage in actual business transactions. One speaker did say that where U.S. business is competing with foreign governments, such as through state trading, then "we can't compete without special government help." But, he added, "We should never stop looking for opportunities to get back on a private trade basis."

Another question from the audience asked whether world hunger is due to shortage of food or shortage of consumer buying power. Here a panelist gave his opinion that underlying the entire problem is a shortage of buying power. The great need, he said, "is for generating conditions where people have a chance to buy."

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AGRICULTURAL AND ASSISTANCE PROGRAMS OF THE SINO-SOVIET BLOC

Thomas C. Mann

Let us begin our discussion of Soviet agriculture with the year 1928, when the first of Stalin's five-year plans was launched. Forced industrialization was begun in earnest and clear priority was awarded to all that would assist in transforming the Soviet Union from a relatively backward agrarian country into a mighty industrial empire. To this task were brought the resources—both human and material—of the agricultural sector. The consequences were manifold, but may be illustrated by the dramatic shift—still in progress—in the composition of the labor force. Agriculture in 1928 accounted for 80% of the able-bodied workers while industry employed less than 10%. By the year of Stalin's death in 1953, the agricultural labor force had been reduced to 45% of the total while industry's share of the labor force had increased dramatically, over three-fold.

While agriculture played second fiddle to the regime's ambitions for industry, it was called upon to bear much of the cost of those ambitions. A high turnover tax—which I might point out is a very regressive form of taxation—was levied on agricultural products. Thus the government bought agricultural products at very low prices and sold them to the population at much higher prices, with a major portion of the difference becoming a principal source of revenue for financing the industrial program.

In squeezing the most out of agriculture to finance industry, the regime sought measures to place the peasants under tighter reins and forestall rebellion. Amid wholesale executions and deportations, individual farming was virtually eliminated. In its place, peasants were put to work on huge state farms, formed from confiscated land, and on the much more numerous collective farms organized from individ-

ual farmsteads. The disruptions in agriculture during the period of the first five-year plan were accompanied by widespread crop failure and famine. But despite shortages, the Soviet government exported agricultural products in exchange for industrial machinery imported from abroad.

The overall status of agriculture changed very little up to the time of Stalin's death. Per-capita production and consumption of agricultural products was no better in 1953 than in 1928, or for that matter, than in 1913. Industry in the meantime was making rapid strides. Despite the setback caused by World War II, industrial production in 1953 had increased 130% over 1940.

Soviet Agricultural Goals

It has only been since 1953 that effective measures have been taken to bring agriculture into better balance with industry and to keep its expansion in step with the increasing demands of an increasing population. These are largely associated with Khrushchev. While quietly abandoning Malenkov's "pie in sky" promises relative to consumer goods, Khrushchev realized the need for a consumer program and increased material incentives to revitalize the population. He judged that this should be accomplished without diverting any more resources than necessary from the big growth-producing sector—heavy industry—and fundamental improvement in the long neglected agricultural program was seen as a basis for the solution of this problem.

In 1954, Khrushchev launched a big acreage expansion drive as the cheapest way to increase agricultural output. His vast "new lands program" was planned to bring millions of virgin, marginal Siberian land under cultivation with the least diversion of resources from industry. Because of this qualification, the basis input in the project—besides the land itself—was labor. This consisted generally of the transplanted youth who came in great armies from the Soviet urban centers, and underemployed collective farmers. Overall the industrial and construction materials inputs were not great. The new lands program has brought about 85 million acres under cultivation, increasing Soviet acreage under cultivation by about one quarter.

Khrushchev's next big program and one which apparently is near and dear to him was the corn program. Conditions in the Soviet Union do not necessarily make it possible to develop corn-belt farming but Khrushchev is convinced of corn's merits for Soviet agriculture, and especially as the basis for expanding the livestock products output. Acreage under corn was to be expanded from about 9 million acres in 1953 to 70 million in 1960. However, between 1955 and 1959, corn

acreage in the USSR has fluctuated between 45 and 60 million acres.

With these programs, Khrushchev not only expected that Soviet agriculture could be brought out of the doldrums of the thirties and forties but he also began to promote the slogan of catching up with the U.S. per capita production of milk and butter by 1958 and meat by 1960-62.

Khrushchev is not relying on acreage expansion and the corn program alone to bring substance to these goals. Incentive and organizational measures also loom large. For example, higher prices are now paid for agricultural produce, with the expectation that increased peasant cooperation and increased production will offset additional costs to the state. The use of incentive and organizational measures, like the new lands program, is aimed at obtaining the greatest gains in agricultural improvement with the least impact on the heavy investment program in industry.

In January 1958, Khrushchev revealed his decision to abolish the Machine Tractor Stations (MTS), which had traditionally been one of the three basic units in agriculture—machine tractor stations, state farms, and collective farms. Machine tractor stations were pretty much what the name implies. Most mechanized equipment and their operators were located at these stations and teams performed the necessary machinery operations for nearby collective farms. The MTS had the additional function of providing political control in the countryside.

Khrushchev's decision reflects a desire to end the situation of "two masters" for collective agriculture. It is evident that the regime no longer felt the need for the MTS as the party's right hand in controlling the peasantry since party members on the collective farms had increased greatly in numbers, particularly among farm chairmen, and the peasants were now more favorably inclined toward the government than they were during the harsh, austere Stalin era. The machinery once held at the MTS's was sold to the collective farms, which then supposedly became "masters" of their own production. At least they had control over the instruments of production. New machinery which is needed in farm production is to be purchased by the farm itself.

The decision had several effects which fit into the regime's basic interests. With machines readily available at all times on the collective farms, agricultural work could be organized more to the advantage of each individual collective farm—although much government supervision still exists—and the end result was bound to be an improvement. At the same time, sales of farm equipment to the farms themselves provide revenue which can be invested in industry. The

government still retains control over basic decisions on overall production goals, to which individual farm's plans must conform.

Let's look at the results of Khrushchev's program thus far. The industrial orientation—characteristic of Soviet intentions throughout its history—has not been altered. Industrial development has slowed down very little, and the apparent continuing ability to increase industrial output at a rate of 11 or 12% annually, as calculated in the USSR, is a source of great satisfaction to Soviet leaders. Along with these achievements in industry, the Soviets can point to two record harvests since the Khrushchev program took hold: One in 1956 and one in 1958. In fact the 1958 grain harvest, abetted by exceptionally favorable weather, was the largest in Soviet history and became a rallying cry for even greater achievements in the next seven years—the new plan period. Overall agricultural production increased about 50% between 1953 and 1958. When we remind ourselves of the statistic I mentioned earlier—1953 per capita production no better than 1928—we get some idea of the magnitude of the Soviet improvement under Khrushchev's programs.

With a better balance between agricultural and industrial development the Soviet consumer has a much brighter outlook than formerly, since agricultural output is basic to better food and clothing, the collective farmer's lot has also improved. He is no longer as severely exploited as he was before. He is being encouraged to identify his achievements with his country's future.

Increased funds are flowing into the collective farm, and the collective farmer is beginning to enjoy some of the advantages of a technological society. Under government control, farm funds are being devoted to rebuilding the countryside—new dwellings, schools, hospitals, bakeries, roads, gas, electricity, etc. In most cases, these are built with labor and resources furnished by the collective farm either individually or through the so-called intercollective constructions units. These latter organizations are a very recent development. A group of collective farms band together to accomplish tasks beyond the means of any single farm. The development has become more formal in recent months and many intercollective farm production units engage in activities the year round with a regular staff of employees and work responsibilities similar to an urban industrial establishment.

Recently the intercollective movement has been lauded as an ideologically correct development. According to this view, it represents a "higher" form of socialist endeavor than the collective farms themselves—that is to say, it places the collective farmer, in terms both of interest and responsibility, in broader organizational frame-

work. In Communist language intercollective units are "budding shoots of Communism."

What are the prospects for Soviet agriculture in the foreseeable future? Industry will retain its relatively favorable position under the seven-year plan (1959-65). Compared with the last seven years, industry's share of investment will be up from 54% to 57%. Agriculture's share of capital investment will remain about the same.

On the other hand "hidden reserves of ability and initiative being unlocked in the countryside," to use a Soviet expression, are the major basis for high expectations of further progress in agriculture. These expectations are reflected in the seven-year plan for agriculture which called for a 70% increase in agricultural production.

We don't believe that the presently scheduled programs plus all the "hidden reserves" of ability and initiative that can be mustered give any indication that this optimistic goal can be met. It seems to us more likely that only about one-third of this planned increase will be achieved. Why? Well, for one thing, vast areas of untapped "new lands" no longer exist and increased production must now depend upon more intensive cultivation, which is a more expensive undertaking in terms of capital investment than opening new areas to cultivation. Secondly the corn program cannot be extended much further—there are physical limits to growing corn. In coming years more attention presumably must be paid to crop rotation and soil conservation.

There is ample evidence that the Soviet regime is actively concerned about all of these problems, particularly that of finding or drawing out new "hidden reserves." It seems likely therefore that additional changes in the direction of increased efficiency and incentives, and improved organization will be forthcoming.

To implement improvements in the program, more resources may in the future be devoted to agriculture but probably this would only be as long as industry's share of investment in the national program does not decline. Therefore, we believe that the seven-year plan for state investment in agriculture may be increased somewhat if gains in agriculture are judged too modest. For example, this year's grain harvest is poorer than last year's but the central press continues to laud "harvest successes" and carefully avoids damaging comparisons.

In the past, the regime probably hasn't let industrial growth rates slip to pursue agricultural targets. On the other hand, industrial growth this year has exceeded the plan, so the leaders may possibly devote more resources to the agricultural and consumer goods programs.

Agriculture in Communist China

Communist China is still an agricultural country. Nearly 80% of its immense population lives directly upon the land. While agriculture's proportionate contribution to national income is falling slowly under the impact of the Chinese Communists' industrialization drive, the regime is largely dependent on what surpluses it can squeeze out of agriculture through controlled consumption and efforts to increase production to finance its scheme to expand its industrial and military potential. In addition, agriculture must provide food for a rapidly growing population, the bulk of exports to pay for imported capital goods, and raw materials for industry. In its first decade of power, Peiping has employed strenuous and ruthless measures to impose controls on consumption and to increase farm output in order to divert investment to the industrial sector. What gains it has made have been at the expense of an enormous loss of human freedoms.

Although the Chinese Communists have borrowed much in the way of agricultural policy and practice from the Soviet Union, there were and are enough differences in the position of agriculture in the two countries to make it advisable for the Chinese to modify Soviet concepts.

First, among the differences is the immense scale of China's agricultural population. China's grain crop ranks first in the world; its cotton crop, second. But it has a population estimated at 650 million to feed and clothe. The result is that the average individual lives on the thin edge of subsistence. On the other hand, we must always keep in mind that less has to be taken from each Chinese peasant to buy a given number of standard items with a standard cost, such as a blast furnace, than has to be taken from farmers in other countries.

A second difference is in the ratio of labor to capital and labor to land. The vast reservoir of underemployed labor in mainland China's countryside has made it possible for Peiping to fashion farm programs which utilize labor intensively. Although mechanization in China has been greatly desired, it has thus far been an impracticable and unattainable goal. In addition, labor supply for industrialization—a problem which engaged the attention of the Soviet Union and most western nations in their industrial infancy—is not a problem at all in China except insofar as skilled labor is concerned. Then there are differences in cultivation techniques—the Soviet Union has nothing like China's large areas of paddy culture and China does not have the same vast Dakotalike reaches the Soviet Union has. China's central agricultural problem has been and remains: How to increase the productivity of land rather than the productivity of farm labor.

Of course, certain similarities exist between agriculture in the two countries, especially in the institutional arrangements. The present leaders in China, like the earlier Soviet leaders, aim at the greatest possible growth in heavy industry in the shortest possible time. This makes them attempt to keep living standards at the lowest level compatible with production efficiency and morale. They also plow back into investment a large and increasing share of output. China borrowed its system of translating farm output into investment funds from the Soviet Union.

In Communist China, there are direct central and local agricultural taxes, calculated on the basis of estimated yields while the crop is still standing in the field, not on what actually reaches the granary. There are a number of indirect taxes on the processing and handling of farm produce, and on industrial goods. The governmental authorities purchase a fixed portion of the crop at artificially low prices for resale (including resale back to the farm) at a profit to the state. Further, the authorities purchase—sometimes at slightly higher prices than under the forced purchase program—a varying portion of the “surplus” left over after all other state demands are met and a state-stipulated amount has been set aside for consumption. In total, the state certainly removes under one or another of these levies a far larger percentage of output than the 7-10% which the Chinese propagandists speak of.

The early stages of Peiping's institutional reform of agriculture were also borrowed from the Soviets and the availability of a great deal of often unhappy Soviet experimentation enabled the Chinese to avoid many of the pitfalls into which the Soviets had fallen. The objectives were the same; namely, to separate the farmer from his individual plot of land and make him over as far as possible into something resembling an urban wage-earner.

The Chinese Communists started to socialize agriculture with a bloody land reform in which the landlords and many rich peasants, rich only in Chinese terms, were eliminated. Then they moved on to establish mutual-aid teams. Under this setup, the peasants nominally continued to hold their land but banded together to perform the major tasks of plowing and harvesting each other's land. Cooperatives and collectives followed in short order. Each institutional change was something into which the peasants were coerced by the state. Each step was undertaken as a mass nationwide campaign in which the peasant was forced to give up either property or freedom or both. Failure to cooperate meant being branded as a “rightist” with the inevitable results. This had a marked effect on incentive and consequently production suffered.

Last year, pursuing their own doctrine of uninterrupted revolution, the Chinese leaders startled the Communist and non-communist world by showing that the collective farm was not the end of the rainbow in socialized agriculture. In setting up their communes, they embarked upon seas which had not yet been fully explored and charted by the Soviets. The Chinese therefore have had to do their own experimentation and this has involved them in some painful backing and filling.

Communes may have looked fine on paper, but in fact were unwieldy, unworkable and very loosely-knit. Furthermore, the elements of communal living which they introduced such as common mess halls, happy homes for the aged, and in some cases the separation of husband and wife, struck severe blows at the traditional family system and were deeply resented. Now, after a year of what they call "tidying up," the commune still exists in name. However, as a practical matter, the basic unit of ownership, operation and distribution in the Chinese countryside remains the collective farm, now called a "production brigade." Within recent months, the regime has restated its support for the commune as a permanent, basic institution, and it is likely that pressures will be exerted by the state to reoccupy some of the positions it has been forced by popular opposition to give up.

So much for the organizational changes: I would like to discuss at somewhat greater length some of the physical steps which the Chinese Communists are taking to bolster farm production. To date, they have concentrated upon labor intensive projects, largely in the field of water conservation, in an effort to lessen the impact of weather on crops. In the winter of 1957-58, for example, the regime launched a massive drive, which at its height involved virtually hundreds of millions of Chinese, from the cities as well as the countryside. Staggering claims, later modified, were made as to the acreage of land newly irrigated or guaranteed against flood. It is doubtless true that great changes have taken place over the past 10 years in this and related fields, where the impact of mass labor, plus small inputs of capital, are the greatest. A beginning has also been made at introducing better seeds and insecticides and, most importantly, chemical fertilizer.

The regime's efforts in farm extension work have not been uniformly happy. Let me cite several examples from last year's much publicized "great leap forward." As a part of this program to make full use of China's often underemployed manpower, the Chinese leaders began a drive to popularize new—and really intensive—cultivation techniques. In the beginning these methods were confined to one or two small experimental plots in a particular locality. But as "politics

took command" of economic work in the countryside—in accordance with the demands of the Chinese Communist Party—the drive spread and quickly lost touch with the realities of life in the still-poor Chinese countryside.

It reached its rankest growth late last fall and early in the winter, at which time the controlled press and radio were commenting favorably on the possibility and desirability of using these methods on one-third of the land which had hitherto been cultivated, letting the other two-thirds stand idle or putting it to pasture and trees. This was called the "three-thirds" system and the expectation was clearly that total output could be increased by its adoption. Many provinces in fact announced plans to take 30 to 40% of their land out of cultivation. It wasn't long before calmer views prevailed, but not before the acreage planted to winter crops had been reduced.

I might touch on one other aspect of the new cultivation techniques which Peiping was pushing a year ago. Again the political enthusiasm of the Communists activists thrust aside the saner views of the agronomists and economic planners. The techniques used on the small plots included deep plowing, close planting, extra heavy fertilizing. You can see that, other things being equal, there was some merit in these schemes. But other things were not equal and the schemes were frequently taken to absurd lengths, far beyond the point where returns justified the human and economic costs.

Thus efforts were made last fall to plow—or rather, given the shortage of power in the countryside, to dig—the land to four or five or even 10 feet. These attempts were surprisingly widespread and Peiping now ruefully admits that large amounts of acid subsoil were turned up, leading in some cases to an actual reduction in output. In other instances, plants were jammed so close together that they could not get enough light and air to grow properly and lodging resulted. The regime has of course reconsidered these programs and now insists that they be applied in strict accordance with local conditions. When it talks about deep plowing now, it is talking in terms of 6 to 8 inches, not that many feet.

One of the prime examples of self-delusion was the 1958 great leap forward when for a time the regime committed itself strongly that foodgrain production had been more than doubled from 186 million tons in 1957 to 375 million tons. It is not difficult to understand the genesis of this confusion at the grass roots level. The petty officials had been told that statistics are a political tool and behaved accordingly. No cadre in his right mind would wish to report that his production unit had not overfulfilled its target, however impossibly high it might be. And as the fantastic reports rolled in, there de-

veloped in Peiping a state of euphoria in which the communes appeared to be the magic key to success. Out of this never-never land further unsound policies were formulated.

So far agriculture in Communist China has moved ahead more slowly than industry in which comparatively heavier investment was made. Up until 1958 agricultural output increased only slightly faster than did population growth. Favorable weather and the almost unbelievable expenditure of human effort did permit a sharp jump in 1958—perhaps as much as a 15-20% increase. However, the lack of reports of a serious storage problem, the failure of an export drive to develop, the tightening of food rationing in the cities and the close control of food consumption in the communal mess halls raise the question of where the claimed increase went, or whether in fact there was a significant increase at all.

The claimed increases were largely in grains, principally in the bulky, low-grade sweet potato, and in cotton. Output of some non-staple foodstuffs actually decreased. The end result was a decrease in the quality and variety of the Chinese diet, despite the large increases in grains. Furthermore these increases will probably not be equalled in the future. In fact, the Chinese Communists must realize that the day may not be far off when large increases in farm output cannot be had, so to speak, on the cheap.

Recent speeches and articles by some of the top economic planners in Peiping have revived the theme that further agricultural advances require mechanization, further irrigation, and the universal application of chemical fertilizers. All of these require heavy doses of capital investment. The regime thus faces a dilemma. The central core of its program for economic growth, to which it is committed, has been the development of heavy industry. Domestic investment and Soviet aid have been oriented largely in that direction. But now the point has been reached where increased agricultural production designed to provide a surplus for industrialization can only be achieved through capital investment at the cost of industrialization.

The Chinese Communists always have been reluctant to divert resources away from industry toward technological advances in agriculture. Whether the present talk will develop into a large-scale program remains to be seen. In any event, we should keep in mind what the Chinese Communists mean when they talk about mechanized agriculture. After all, mainland China is in a very early stage of mechanization—a wheeled plow is regarded as a machine. Less than 3% of its land was worked by machines in 1958 when that whole vast land had only one-tenth as many tractors as the single State of Iowa had four years earlier.

There are two thoughts I would like to leave with you concerning Chinese agriculture. The first is that while agricultural production may be expected to continue to increase, probably slightly faster than population, neither the peasant nor the city-dweller may expect to benefit. By word and deed the regime has made it clear that austerity and bitterly hard work are watchwords for the Chinese people and that what surpluses there may be will be fed to the growing industrial plant.

The second thought is with regard to the extent to which the Chinese Communist leaders lost sight of reality during the "great leap forward" of 1958. This demonstrated ability of the regime to subordinate logic and common sense to its political dream has sober implications for its foreign policies.

Sino-Soviet Bloc

Now that we have considered some aspects of agricultural programs inside the USSR and Red China, let us look at some of the bloc effort outside of their borders, with particular reference to agricultural assistance.

The presence of some 4,700 Communist bloc development technicians working on bloc aid projects in 21 less developed countries, ranging from Argentina to Indonesia, is a phenomenon which did not exist six years ago. But today Sino-Soviet bloc technical assistance is a rapidly growing factor on the world scene. The extent and techniques of Sino-Soviet bloc technical assistance and their relationship to agricultural development in the less developed countries have become a subject worthy of our most careful consideration.

In surveying bloc aid activities, one of the facts which I think you will find interesting is the relative neglect of the rural economy. For every Soviet ruble allocated for such projects as developing sugar cane acreage in Ceylon, many more are allocated for the construction of steel mills, cement plants, or oil drilling operations. Direct, technical assistance to agriculture, such as we know in the West, has been largely neglected in bloc aid to less developed nations. And this despite the fact that in most of these countries agriculture accounts for the bulk of the national income.

Why, then, do the Russians pay relatively little attention to this sector of the economy which must carry a major part of the burden of financing economic development? The reasons are varied but a major factor stands out: Propaganda, impression, show, the desire to reap quick psychological gains. To the laborer on a rubber plantation in Indonesia and to the shopkeeper in an Indian bazaar, an operating steel mill has tremendous appeal. Despite the basic need for improved

methods of production and marketing in agriculture, crop diversification and the like, industrial projects are often far more spectacular. They symbolize economic progress, prestige, economic independence. The bloc has shrewdly catered to such desires with the object of becoming closely identified with nationalistic interests. At the same time, they fan anti-Western prejudices, repeatedly charging that Western aid programs, with their considerable attention to direct agricultural assistance, are designed to keep the less developed countries in a "colony status" as producers of raw materials.

Nevertheless, we must remember that many of the bloc-sponsored aid projects, such as dams for water conservation and irrigation, factories for the processing of fruit, sugar, and cotton or milling flour, even improved transport facilities, have an overall effect on agricultural development. Thus, by interpreting aid to agriculture *in a broad sense* we find that agricultural development plays a more significant role in the Communist bloc's economic offensive than is at first apparent.

Bloc economic and technical aid programs differ from Western aid programs in several ways. They are usually concerned with specific projects, such as the construction of a steel mill in India, a hospital in Cambodia, an Aswan dam in Egypt, or the building of a road and tunnel through the Hindu Kush mountains in Afghanistan. The Soviet bloc has no separate, overall aid program like that of ICA or the Colombo Plan. When a Rumanian petroleum expert arrives in India, he is there for specific phase of an oil drilling project and after a relatively short period he will probably be returned to Bucharest. Contrary to Free World practice, Soviet bloc technicians are, with few exceptions, paid for by the country in which they are working—usually under a credit arrangement. All expenses are charged to the host country.

Any appraisal of bloc economic and technical assistance would of course, be incomplete without some mention of the magnitude and scope of bloc credits and grants. These are the financial sinews of the bloc's economic offensive. And it is here that we can observe the rapid expansion of this economic offensive over the amazingly short span of five years.

In 1954, Sino-Soviet bloc credits and grants to less developed countries of the Free World were less than \$11 million. In November 1959, they totaled \$3.2 billion, including about \$800 million for arms and military technical assistance. In this picture, the Soviet Union has extended \$2.4 billion, the European satellites \$650 million, and Communist China \$150 million. Perhaps even more startling than the total figure for credits and grants is the amount extended in this year

alone, \$882 million, all of it for economic aid. The year 1959 has witnessed some important credit announcements by the Kremlin: \$100 million to Ethiopia, \$87 million to Afghanistan, \$35 million to Guinea, \$420 million to India, and \$137 million to Iraq. And these are only some of the more important.

I think it especially significant to note the distribution of bloc aid to the less developed countries. Approximately 92% of all credits and grants have been extended to eight nations. These are India, Indonesia, Iraq, the United Arab Republic, Afghanistan, Ethiopia, Argentina, and Yugoslavia.

Except for the military deals, utilization of bloc credits has been fairly slow. By June 1959, only 40% of the economic credits had been utilized. However, some 80% had been contracted for or earmarked for specific projects. The necessity of conducting surveys, drawing up plans, and making other preliminary arrangements has been partially responsible for the lag between receiving a Soviet loan and spending the money. In the case of the Aswan Dam project, for example, the Soviet and UAR experts continue to draw up plans in both Cairo and Moscow. Large-scale expenditure of the \$100 million credit given to the UAR for the first stage of the dam will not take place for several months.

Grant aid—as distinguished from credits—has not been very popular with the Communist bloc. But when the political motives are strong, the USSR has made a few exceptions. Until last year, most Chicom aid involved grants. Since 1955 the Sino-Soviet bloc has extended \$167 million in grants to less developed countries in the Free World. During 1959 the USSR made its first developmental grants. Afghanistan received \$80 million for a major highway. Nepal, which refused to accept Soviet offers of credit, received a grant of \$7.5 million.

While Soviet aid activities are in a bureaucratic sense run by a State Committee in Moscow, and some efforts at coordination of activities have taken place within the European bloc, there is no agency comparable to our ICA. The USSR does not give any evidence of concern with an integrated country approach aimed to secure balanced growth. For the most part, the emphasis seems to be on particular projects rather than a program approach although some are engaged in making surveys especially in the field of petroleum.

During the first six months of 1959, there was approximately 6,100 bloc technicians who served one month or more in 21 less-developed, free world countries. Of these, some 4,700 were working directly on economic development projects and 1,400 were involved in military assistance. We estimate that technical services, that is, the cost of

paying for bloc technicians, to date account for between 10 and 20% of the credits extended to the countries receiving aid.

About 60% of bloc technicians in the less-developed countries during the first six months of 1959 came from the Soviet Union; about 27%, from the East European satellites; and the remaining 12% from Communist China. Most of them were located in the countries of Asia and the Near East. As the year progressed, there were substantial increases of bloc technical personnel in the United Arab Republic, Iraq, Yemen, Afghanistan, Guinea, and India. The numbers of bloc technical personnel in Indonesia, Burma, and Iran have declined somewhat as projects requiring their services have been completed.

With relatively few exceptions, Sino-Soviet bloc technical personnel have maintained a good record in their host countries. They are hard-working, well disciplined, and regarded as competent in their special fields. Relations with local people are somewhat limited but generally cordial. Contrary to what has frequently been reported, they are *not* generally fluent in the language of their host country. Only a few Soviet personnel at the Bhilai steel mill in India speak Hindi or other indigenous languages. Almost all Soviet technical personnel in Rangoon speak to the Burmese through interpreters. Ironically enough, English is the *lingua franca* of most bloc personnel in dealing with most local people in Asia, the Middle East, and Africa.

On the surface at least, bloc technical personnel appear to make no effort to indoctrinate local people with Communist ideas. Nor do they associate openly with local Communists. This should not, of course, be taken to mean that Moscow and Peiping will fail to take advantage of the presence of bloc technicians in less developed free world countries as valuable sources of intelligence.

There are other aspects of bloc technical assistance which help round our picture of the overall bloc aid program and some of its features. Besides direct technical assistance in agriculture, which we shall deal with last, the Soviet bloc is providing medical aid, technical training, and assistance in long-range economic planning.

Assistance in the fields of public health and medicine, although comprising a relatively small part of the bloc's assistance program, is nevertheless becoming increasingly important. It acquires added significance because of the direct and personal contact which it provides with local populations. And it lends itself admirably for propaganda purposes. The arrival of Soviet doctors and nurses to open a hospital, or a new shipment of vaccine from Prague receives the maximum possible play through Soviet and local Communist propaganda media.

In the field of economic planning, the bloc has provided several less developed countries with skilled economists and administrators, many of whom occupy very high official positions in either the USSR or the satellites. Oscar Lange, chairman of the Polish Economic Council, has been a consultant with the Egyptian Government on economic organization. He has also advised India and Ceylon on economic planning. Several different Soviet advisers are now working at the Indian Statistical Institute in Calcutta. This is a quasi-governmental organization which, besides doing research and training, also prepares technical studies which are used by the Indian Planning Commission. East German advisers are working closely with Egyptian Government officials in the implementation of Egypt's five-year plan for industrialization.

The bloc has also been active in bringing large numbers of young Iraqis, Syrians, Indonesians, and Indians to Soviet and East European universities and factories for scientific technical instruction. Many others will be trained in Soviet-aided vocational training centers within their own native country. Many of these students will presumably man the various industrial projects now being constructed under the bloc economic offensive. It is, of course, obvious that they are exposed to a substantial amount of Communist political and ideological indoctrination during their training and some countries have already cut back on plans to utilize bloc facilities due to this.

In India, the USSR is conducting an intensive on-the-job training program in connection with the Bhilai steel mill. In addition, about 1,000 Indian steel technicians will be trained in the USSR. Under the auspices of UNESCO, the Soviets are also aiding the Indian Government in the establishment of a technological institute in Bombay. When completed, the institute will train 1,000 students per year in 15 different technical subjects. There will be at least 16 Soviet professors on the teaching staff.

Probably the most outstanding industrial project related to agriculture is the proposed construction of the first stage of the Aswan Dam in Egypt which is being financed under a \$100 million credit. The entire Aswan complex when completed will irrigate two million acres of land and will increase the total amount of arable land in Egypt by 20%. The bloc has also agreed to construct or help in the construction of dams in Syria, Indonesia, Afghanistan, and Ceylon. In Syria, a dam on the Euphrates River will eventually be part of a larger complex which will irrigate 750,000 acres.

Several Soviet credits and grants have specifically provided for the purchase of agricultural equipment. After visiting India in 1955, Khrushchev sent that country five shipments of Soviet agricultural

machinery valued at \$1.5 million. The machinery was put into operation on a state-owned farm in Rajahsthan.

Another form of agricultural aid, which in one instance boomeranged rather badly to the bloc's disadvantage, has been the construction of sugar refineries in several different countries. The refinery to receive the most publicity was one in Indonesia. Built by the East Germans, it was scheduled to begin production in 1956, but was not officially inaugurated until May 1958, and it broke down shortly afterwards. The losses—both financial and propaganda—caused by this breakdown were considerable. The mill finally began operating again in June 1959, three years behind schedule.

It is only in Burma that we find a bloc-sponsored technical assistance program which in any way resembles the type of technical assistance rendered by the United States. During 1958, about 20 Soviet agricultural specialists were in Burma working directly on such projects as irrigation, soil classification, research, plant breeding, and the construction of a 5,000 acre model farm. Experiments were also carried out in an effort to develop some improvement in animal drawn plows. These experiments were, however, largely unsuccessful. The Burmese felt that the cost of the Soviet plows was far out of proportion to their efficiency. Early in 1959 most of the Soviet agricultural technicians left Rangoon because, as an economy measure, the Ne Win Government did not renew their contracts.

In reviewing the high points of Soviet bloc aid to underdeveloped countries, we have seen a rapid expansion of credits and grants from the Soviet bloc to countries in Asia, Africa, and the Middle East—countries which are largely agricultural. And we have noted that the bulk of Sino-Soviet bloc technical assistance to these nations has *ignored*, or appeared to ignore, their need for assistance in the agricultural field. A major reason probably lies in the political motivation behind the bloc aid. But there may well be another important factor. By their own admission, Soviet agriculture is still a comparatively weak sector of the economy with productivity on Soviet farms far below that in the U. S. Lack of experience in tropical agriculture and emphasis on large-scale farming probably also affect the suitability of Soviet technicians for dealing with many of the problems in the less developed countries of the Free World.

I would like to close on this note: That the Soviet ability to aid underdeveloped countries is particularly limited in the field of agriculture. And in this field, *agriculture*, American superiority over the USSR is particularly great—with American productivity, scientific development, education, and system of management standing out head and shoulders above the Soviet system.

SEMINAR

AGRICULTURAL AND ASSISTANCE PROGRAMS OF THE SINO-SOVIET BLOC

Participants

Panel: Douglas Williams, United Kingdom Embassy; Robert deWilde, French Embassy; Wendell Woodbury, U.S. Department of State; M. R. Clarkson, Agricultural Research Service, U.S. Department of Agriculture (moderator).

Summary and Background

The contrast between Free World types of international technical assistance and those of the Sino-Soviet bloc countries was apparent throughout the seminar discussions. Panel members described Free World technical assistance programs as being motivated by a genuine desire to help raise the technical competence and the internal strength of recipient countries, in contrast to typical political and propaganda motivation of the Sino-Soviet bloc. They also contrasted the types of projects usually undertaken, pointing to the Soviet tendency to emphasize dramatic industrial projects ("economic monuments," they were termed by one panelist) rather than less spectacular but perhaps more essential projects of an agricultural nature.

The discussions were prefaced by summaries by panel members



Panel members discuss agriculture and assistance programs of other countries. Left to right: M. R. Clarkson, Douglas Williams, Robert deWilde, Wendell Woodbury.

of British and French technical assistance approaches and activities, and a brief review of Sino-Soviet programs.

Statements by Panel

Mr. Williams discussed agricultural policy in British overseas dependent territories and its political implications. The British aim is to lead these territories forward to self-government, and assist the people in attaining a reasonable standard of living and freedom from oppression from any quarter. This means not only a political revolution, but also cultural and the agricultural revolutions.

Africa illustrates the magnitude and scope of the agricultural revolution, which includes the introduction of new tools and techniques, new crops, soil fertility improvement, improved methods of irrigation and soil conservation, and techniques for adapting new crops to new environments.

In all this, the necessary instruments are men, money, and policy. The majority of the men are from career overseas services, including agriculture, fisheries, veterinary, forestry and research. The money, \$2.8 billion in free grants and loans expended since 1946, includes 21% for roads and communications, 27% for education and health, 11% for housing and water supply, 19% for agricultural development, and 10% for basic research. The basic, but not only, policy is to raise the productivity of peasant producers so they can feed themselves better or produce a crop to exchange for cash.

The results have been gratifying, but not without a few fiascos. We must deal with the continuing problems of soil fertility and erosion. From 1952 to 1959, the main problem has been shortage of capital and technical skill; now we are also specially concerned with the problem of trade or providing these territories with markets for their goods. In other words, we consider trade just as important as aid as an essential prerequisite for future political stability in these areas.

Mr. deWilde stressed the role of France in providing technical assistance through United Nations Agencies, bilateral agreements, and France's own organizations. He emphasized that no mature country can afford to turn a deaf ear to the needs of neighbors in the process of the "take-off."

France is faced with administrative and financial problems in its foreign aid program, not the least of which is the need for trained technicians. In 1954, the IFCT (Institut Francais de Cooperation Technique) was formed to work with the government in development of world agriculture, livestock and forestry. By handling foreign aid financial problems, France felt that public investment should pave the

way for private investment in underdeveloped areas. This principle was followed in the working of France's FIDES (Investment Fund for Economic and Social Development in the Overseas Territories), and Mr. deWilde cited agricultural development in Guinea, Senegal, the Ivory Coast, and Oubangui-Chari. During the past 11 years, \$3 billion have been invested in the French Communauté. In March 1959, FIDES was replaced by FAC (Aid and Cooperation Fund) designed to meet the new political situation, to operate on a bilateral basis, and to finance on the basis of individual operations. Mr. deWilde concluded with a discussion of the pressing need for agronomists and technical advisers to work in underdeveloped areas and the steps being taken by France to train and develop such personnel.

Mr. Woodbury discussed the nature and extent of the Sino-Soviet bloc's neglect of agriculture in technical assistance operations. There is no evidence of a program as such, but bloc assistance apparently is tied directly to credits and grants to industrial projects, which result in immediate high propaganda value rather than in long-range agricultural projects. It is estimated that less than 100 of the 4,700 Communist technical experts, operating abroad in some 21 countries, are directly concerned with agricultural development. This compares with 1,000 technicians in the same category from the United States.

The relative agricultural foreign training programs are equally surprising. The bloc has extended \$3.2 billion in economic aid, including \$2.4 billion earmarked for economic development and \$800 million for military purposes. Of this only 40% has been used to date, but 80% has been earmarked for specific projects. Roughly 90% of this aid has been spent in seven countries—the United Arab Republic, India, Indonesia, Iraq, Afghanistan, Ethiopia, and Argentina. There are no indications at present that bloc countries will give more emphasis to agricultural aid in the future than in the past. Technical assistance in agriculture in the less developed countries seems likely to be left to the West for some time to come.

Discussion

Mr. deWilde was asked if France, in its aid program, had a feeling of responsibility to those territories which had left the fold. Mr. deWilde responded that it would depend upon the meaning of "feeling of responsibility," but reiterated the concept that no mature country can afford to turn a deaf ear to the needs of its neighbors, and that France, indeed, has not done so.

The matter of duplication of effort by governments assisting underdeveloped countries was discussed by the panel members and

participants. It was the consensus that there is no global plan as such, but each government is responsible for drawing up its own plan and for avoiding duplication. Cooperation between the governments of the Free World in aid programs is relatively effective. Mr. deWilde mentioned that in Europe Common Market agreements, in a sense, serve to coordinate aid activities as they pertain to market development.

In response to a question on the nature of the Colombo Plan, Mr. Williams responded that the plan does not specifically provide for funds or technical experts. The major contribution has been bringing countries together to consider mutual assistance programs and this has been especially effective in Southeast Asia. Mr. Williams commented on the value of the Colombo Plan yearly meetings for discussing aid and views. Mr. Woodbury mentioned that, in attending these meetings, he was impressed by the cooperative atmosphere.

The nature of political objectives in economic-technical aid was the subject of a lively discussion. Mr. Woodbury said that the Soviets tended to concentrate on the immediate propaganda spectacular, e.g., the hotel, technical institute, hospital, exhibition, and stadium offered to Burma during the 1955 Khrushchev and Bulganin trip. He did not believe these to be as politically effective as long-range economic development aid for a given country.

Mr. deWilde added that we do not hope to get any immediate return for our aid; we supply aid initially because of political ties. Mr. Williams emphasized that the monumental, spectacular type of aid should be judiciously avoided. It is preferable to create in the country a healthy, basic structure for private enterprise. Gratitude is not a good basis for an effective foreign policy.

Mr. Clarkson raised the question as to what extent U.S. aid is prepared to exploit areas which may be disenchanted with Soviet aid. A seminar participant mentioned that ICA is not in business just to compete with the Soviets in technical assistance and economic aid. Mr. Williams interjected that we are not competing with the Russians in spectacular economic monuments, but we should be aware that some countries may be mortgaging their economy to the USSR not through Soviet aid but Soviet trade.

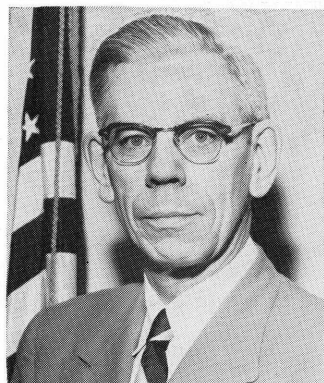
Mr. Gustave Burmeister of the Foreign Agricultural Service, USDA, emphasized significance of world trade to the U.S. and that the trade is improving as economies improve. He stressed the need for long-term studies to determine the kind of trade goods needed by various countries in the years to come. Mr. Williams added that we must also give more attention to providing stable prices for the basic trade products of the underdeveloped countries.

In response to a question on the relative relationship of political education and practical education in British and French territories, Mr. Williams said that major emphasis was given to practical education, but political education was also a part of the overall policy of the British.

Mr. deWilde added that the French emphasize practical education both in the territories and in the training done in France; but he was confident that the political education was not neglected and felt that in most cases the territorial students were born politically conscious. He stated further that students going to the French universities from the territories had a chance to acquire political education.

Mr. Williams was asked why the Tanganyika peanut plan failed. He indicated that the plan was much too ambitious; it was over-mechanized and based on insufficient concern for local weather vagaries. Primarily there was a lack of thorough planning. Similarly, the egg-producing scheme in Gambia was doomed to failure for many of the same reasons. The imported chickens gave diseases to and caught diseases from the local chickens.

Dr. D. A. FitzGerald, Deputy Director for Operations, International Cooperation Administration, has held senior positions with foreign aid agencies since 1948. He was Secretary-General, International Emergency Food Council, 1946-48, and a member of President Hoover's World Food Mission, 1946. He formerly held several USDA executive positions. He holds a B.S.A. degree from the University of Saskatchewan and an M.S. from Iowa State, and a Ph.D. from Harvard. He is author of *Livestock Under the AAA* and numerous articles. He holds the 1956 Career Civil Service Award and ICA's Distinguished Public Service Award.



HELPING OTHER COUNTRIES IMPROVE THEIR AGRICULTURE

D. A. FitzGerald

I am assuming that the question of *why* the United States is helping other countries in their economic development—including the improvement of agriculture—needs little elaboration for this audience. The reasons for our efforts—continuous since the end of World War II—are both pragmatic and idealistic.

Why U.S. Provides Aid

In the early post war years, the emphasis was on rehabilitation from the effects of the war damage. This phase was epitomized by the Marshall Plan of the years 1948 to 1952. The conclusion of this highly successful effort merged with increasing interest in the development of the defensive strength of the Free World against threats of overt Communist aggression, on the one hand, and increasing emphasis on economic and technical assistance to the less developed areas of the world, on the other.

For what will soon be a decade, the people of the United States have supported such a double barreled program of assistance. Throughout almost the entire period of its existence, there has been a continuous and healthy debate as to the relative emphasis that should be put on the two components. In the early years of the fifties, the threat to the Free World seemed to be primarily a military one and the larger proportion of U.S. aid was concentrated in the military assistance field.

In recent years, the threat has spread into an area which might be broadly described as the economic field. During the past three years or so, the Communist bloc—largely the USSR—has entered

into agreements for the provision of 2.4 billion dollars worth of economic assistance to 21 countries, primarily countries on the periphery of the bloc itself. Parenthetically, it should be noted that during the same period it has entered into agreements to provide \$800 million worth of military assistance. During the last three fiscal years, the United States has provided (in the form of both loans and grants) \$10 billion of economic assistance and \$7 billion of military assistance.

Efforts of the United States to help stem the tide of Communist totalitarianism have been, I would suggest, relatively successful in two fields. First, the march of Communism from external aggression has been largely halted—at least temporarily. Currently, activity in this field appears to be limited to probing efforts such as those of 1958 in the Taiwan Straits and more recently in Laos. Takeovers from internal subversion such as that suffered by Czechoslovakia have not occurred recently, although it is clear from events in Iraq and elsewhere that this device is still being vigorously pursued. Most recently, international Communism is concentrated on a more “peaceful” type of takeover, namely that of economic penetration through the provision of economic assistance. The fact that this has now become a major drive on the part of the Communists can be considered a subtle form of flattery. It seems clear that the success of the U. S. efforts in the economic and technical fields drove the Communists to “retaliate” in kind, although the relevant purpose is quite different. We have no imperialistic motives; international Communism obviously has.

But our motives for providing economic assistance are not solely for the purpose of thwarting international Communism. We have business reasons for supporting economic development. Economic development abroad supports and supplements economic development in the United States. Prosperous economies and growing economies are better trading partners than poor stagnant economies. They provide markets for our exports and sources of supply for our ever increasing requirements for imports—to the mutual benefit of both. More importantly, if the democratic way of life, with its emphasis on human values and human freedom, is to attract the support and participation of those millions of human beings now demanding better standards of living it must offer a reasonable alternative to the claims of Communist totalitarianism.

Last but by no means least, many Americans believe that we should help others less well off than ourselves in a pure spirit of humanitarianism. Indeed, this moral basis for our help to others is deeply embedded in American traditions and heritage.

But if the reasons for our assistance to less developed countries are clear, we need perhaps to consider why we place so much of our emphasis on, and devote so much attention to, helping other countries improve their agriculture even though the reason may be obvious.

Agriculture is by all odds the most important component of the economic structure of all underdeveloped countries, whether measured in terms of people employed, contribution to the gross national product, or value of investment. While many less developed countries put great store in their desire to "industrialize," the time required to develop the physical and human resources to become a really industrialized nation simply eliminates industrialization as a short-cut to economic progress or a panacea for solving all the problems of an underdeveloped country. Nevertheless, it is alleged by the Communists, and parroted by their spokesmen, that U. S. attention to agriculture is for the intentional purpose of preventing these less developed countries from competing with the United States in the industrial field and keeping them in economic bondage to the United States for industrial products. Nothing, of course, could be further from the truth.

Surprisingly enough, or perhaps not so surprisingly, we frequently get questions as to our policy from another source. This source is American agriculture and their spokesmen in and out of Congress. Here again it is claimed that our efforts to help agricultural growth abroad are undesirable, unnecessary, and prejudicial to the interests of agriculture in the United States. Our efforts abroad, so the argument goes, to increase agricultural production adversely affect the overseas market for American agricultural products because increased agricultural production in the countries we are helping either reduces the market for agricultural products in that country, or increases that country's export surplus which is sold in competition with American exports in third markets. The United States, the argument concludes, should avoid any activities to increase agricultural production and instead should concentrate on helping countries to expand their production of non-agricultural products. Parenthetically, I might add that American producers of non-agricultural commodities take exactly the opposite point of view.

There is, of course, no wholly satisfactory answer to the problem. The existence of a billion bushels of wheat in the United States does not guarantee that everyone in the Free World (including even people in the United States) always has a full stomach. The awkward facts are, first, that incomes of many tens of millions, perhaps hundreds of millions, of people around the world are hopelessly inadequate to permit them to obtain a diet which by any stretch of the imagination could even be considered a minimum one. Secondly, many millions

of these people live in countries in which foreign exchange resources available to that country are insufficient to permit it to import food which even the inadequate purchasing power of the consumer would permit such consumers to buy.

Under these circumstances, it is academic to argue that the existence of surplus food in the United States, or for that matter in Canada or Denmark, is a *prima facie* reason for avoiding the provision of assistance to increase agricultural production in the less developed countries of the world. At the same time, some cognizance must be given to the facts of life. Aside from the unreasoned objections of agricultural spokesmen in surplus producing countries, it may be a real disservice to an underdeveloped country to help and encourage it to increase its production of agricultural products already in world surplus. Even though a wide range of man-made barriers largely interfere with any automatic functioning of the principle of comparative advantage, nevertheless some pragmatic application of this principle should be kept constantly in the picture.

The policy of ICA insofar as assistance to agriculture abroad is concerned has recently been enunciated as follows:

Subject to normal programming procedures aid of any kind may be provided for the purpose of increasing the production of foods and feeds for domestic consumption; but it may not be given to increase production of (a) surplus foods and feeds with the result of substantially increasing exports or (b) surplus agricultural commodities other than food and feeds.

It represents, we believe, a reasonable compromise between conflicting interests and conflicting points of view and, at the same time, permits effective help to the countries with which we are cooperating in the improvement of their agriculture.

How U. S. Helps

I now turn to the question more directly related to the subject, namely *how* are we helping other countries to develop their agriculture and to enumerate for you what we believe to be some of the important considerations if we are to be successful in the process.

I shall make no attempt to be inclusive in presenting these considerations nor to arrange them in order of importance. Certainly we have not always done as good a job as we might in giving attention to them. I am even more certain that there are frequent instances where forces and events have dictated action not necessarily in line with them. However, I should like to list the following considerations which should be given to any program designed to help any country improve its agriculture.

1. Where is the particular country presently located on the long and unending road to progress? Countries vary widely indeed in this respect. Some countries may still be, in fact, only on a trail leading to the road of economic progress while others may be already quite a distance down the road. The methods and tools most suitable for implementing a program will vary accordingly. For instance, there is little point in giving high-level advice on animal genetics to a country that has not yet accepted the idea that feed is good for livestock.

We should understand that various phases of agriculture may not have advanced evenly, even within one country. Research in a country may be very much ahead of the application of research findings. Or, more important still, research may have gotten off on the side road of doing research only for the sake of research. Knowledge of improved production practices and the willingness of farmers to use this knowledge may be well ahead of the credit facilities needed to apply it.

2. Should our help be directed mainly to large and spectacular projects or towards the less spectacular but more widely disbursed types? We must recognize that other countries also have their political problems. Since leaders of newly developing countries have a consuming thirst for and are in a hurry to show efforts of progress to their people, there is always a tendency to place undue dependence upon large capital projects. A program that can result in 10 million farmers each producing a few more bushels or pounds of produce is not nearly so appealing as a large reclamation or irrigation project, which, even if fully successful, might not make nearly so great an increase in total production. We, therefore, may expect in many countries an internal struggle on where to place the emphasis and how to divide resources between these two extremes.

3. What is the proper balance between the help we give that reaches people directly and the help we give that may have long-run benefits, such as the buildings of institutions? If we had ample time, say 50 years or so, we could probably aim all of our help at developing institutions—teaching, research, extension, credit, and the like. As it is, however, we cannot ignore either direct help to farmers or the help to institutions. The proper proportion devoted to each varies widely among the countries.

4. How do we judge the rate of progress which a country can absorb? This is particularly important for those countries which are receiving a substantial transfer of resources from the United States in addition to technical assistance. It is quite obvious that if a country receives substantial resources from outside over a long

period of time, it can start more projects, have a greater rate of capital acquisition, and perhaps make a faster rate of growth over any specific period. However, since the appetite for progress frequently far exceeds digestive capacity, we must give considerable attention to the long-range implications of what we are helping to do as against what it will cost to do these things in the absence of our resource support at a later date. I suppose we could say that someone ought to keep the checkstubs so an appraisal can be made of "how much we are letting a country in for" when we try to help it. This is a difficult economic exercise made more difficult because there are always political and emotional forces which somehow or other pay little attention to the economic side.

5. How diversified should we make our help? Should we spread ourselves thin over many phases of agricultural development, or should we concentrate on fewer phases? If we concentrate, on what should we concentrate and in what form and by what methods do we help this particular country? If a country's agriculture is about the level of the United States in 1790, what types of help come first? I am not at all sure the United States is well-qualified to answer this particular point since most of our technical people tend to think in terms of the 1959 model U.S. agriculture. We must always remember that what we can do is inevitably limited by the willingness of the people, and especially their leaders, to accept change, and leaders' capability to manage change.

6. Do we give advice and help to officials or others in a country or allow ourselves to be maneuvered into the position of operating an entity for them? For the most part, many countries equate "help" with "operations." We may be justified in going some way towards operating for a short while but if we are still operating, say a research station, after 15 years, has our help been effective or have we merely taken over the responsibility and the expense of doing something which a country should do for itself? In this respect, I have rather strong opinion that we ought to be guiding people in acquiring knowledge and capability for themselves, rather than doing a job with our own people, even though we might initially do it better and faster. Connected with this consideration is also the question of how we go about closing out a particular endeavor since it is obvious that we cannot continue all of the old and also add the new. Consideration, therefore, must be given to the length of time we help in any one aspect of agriculture, how we are able to phase out a particular aspect, and how to get acceptance of responsibility on the part of the country to assume the load, both economically and technically.

These considerations should always apply—sometimes with more emphasis on one, sometimes with more emphasis on another—to all forms in which the United States may help agriculture overseas. These forms may be of many specific kinds but for the purposes of this discussion, they may be roughly considered as falling into two main classes: Technical assistance and economic assistance; although it is to be hoped that our technical assistance is also economic.

While there are always numerous exceptions to the rule, technical assistance concentrates on helping to develop human resources; and economic assistance, physical resources. The optimum proportion of each in the mix is clearly desirable but not always easily determined. I am more and more inclined to the opinion that the limiting factor first reached in most less developed countries is in human resources. This, I believe to be the case not only in agriculture but “across the board” in public administration, health, education, or private industry. Parenthetically, this was not generally the case in the Marshall Plan days since Europe generally had a literate well-trained managerial and labor force. There the limiting factor was obviously physical resources.

Growth of U. S. Assistance

For these and other reasons, the bilateral Technical Assistance Program of the United States has grown steadily over the last decade. In the 1959 fiscal year, it is expected to be in the neighborhood of \$150 million. With these funds, we will be financing some 3,200 technicians overseas, of whom nearly 1,100 are in the agricultural field, and providing training for from three months to a year for some 8,000 foreign nationals, of whom 2,100 will be in agriculture. Seventy-five percent or more of the foreign nationals will receive training in the United States at U.S. institutions, in universities, on farms, in factories, in government departments, in hospitals, in educational institutions, ad infinitum. The balance will receive their training in “third” countries primarily in Japan and Western Europe.

Even so, broadly speaking, I believe that in the years ahead more and more of our efforts will be directed toward helping to improve human resources. Just the mere job of developing a reasonably literate people is a stupendous undertaking. Since many countries are attempting to pull themselves up by their bootstraps into the economic twentieth century, the literacy rate is abysmally low. Economic development, indeed political and social development, is greatly inhibited, if not rendered impossible until this is corrected.

Many underdeveloped countries, in addition to an appallingly low

literacy rate, have only a handful of trained engineers, administrators, and businessmen. These countries cannot possibly hope to make giant strides in economic development, no matter how potentially productive their physical resources or how much economic assistance they may be provided in the absence of qualified trained human resources.

During the last decade, the United States has, of course, provided massive economic assistance, first to Western Europe and later to less developed countries around the Free World. This assistance has been a major contributor to economic growth in agriculture, as well as in other economic sectors. For the last three years we have provided to one country, on an average, \$50 million worth of fertilizer. This fertilizer has increased grain production by at least 50%. Now we are helping build a fertilizer plant which, when completed, should produce about one-third of the fertilizer requirements of that country.

Again, let me remark that it has not been enough merely to build a physical facility. We also are spending several million dollars in developing the human resources to operate the plant, since it requires a fairly high degree of technical managerial competence and skilled workmen. Without these trained human resources, the plant would be a white elephant.

Training for Technicians

Human resource development is not limited to the nationals of the less developed countries. We have a problem of developing, or perhaps I should say adapting, U. S. human resources, too. Earlier I mentioned that one consideration that has to be taken into account in helping other countries improve their agriculture, is the location of the particular country on the long and unending road of progress. More and more of the countries with which we are working are just entering on the road and indeed many of them are still on the trail leading to the road.

The only kind of American technicians who can successfully help these countries are those who can adapt themselves both to the primitive state of agriculture as it now exists and to the mores—the customs and habits and the traditions—with which agriculture, indeed the country in general, is surrounded. An extraordinary variety of things which we take for granted in the United States is completely unknown abroad. The technician must be able to adapt himself to the level of understanding and knowledge of those with whom he is going to work and teach. To use another comparison, we need highly competent university professors who are equally competent in teaching kindergarten.

This requirement is becoming particularly apparent and essential

in the vast continent of Africa, where new countries are rapidly gaining their independence—Ghana and Guinea in 1958, Nigeria and Somaliland in 1960, and others in the years immediately ahead. As these countries reach independence and look to the West for help, we desire to respond effectively and constructively. We are moving more and more technicians into Africa south of the Sahara, as that vast area through Central Africa from Somaliland to Liberia is called. Our batting average in Africa has been much lower than I would have hoped. Technicians who have been successful in many other parts of the world frequently called underdeveloped, find themselves frustrated and ineffectual in Africa.

We have taken some steps in trying to deal with this problem although we need to do much more. One step was to contract with Boston University to establish a six-months course for technicians, not only agriculture technicians, but technicians in all fields and also administrative personnel on "Africa South of the Sahara." We now have 20 such persons in training at Boston. They will spend three months there, several weeks in the metropolitan countries which have had experience in Africa through administration of these overseas territories, and finally some time learning on the ground under supervision in Africa itself. We expect to use this service for several years in order to develop a corps of people who, though by no means can be called African "experts," can at least have a feel and appreciation and some understanding of the problems of the area and how to deal with them.

A second step we are taking, in agriculture particularly, is to review the background and training of all agricultural technicians for the purpose of bringing to our attention those employees in the agency whose experience, training, and early life in the United States is least dissimilar from the situation currently existing in Africa. There is no possibility, of course, of getting any technicians with wholly similar backgrounds but we are trying to limit the disparity.

At this point I should like to make a couple of suggestions which, looked at from the point of view of ICA, would be of utmost value if they could be adopted. The first of these suggestions is that the Department of Agriculture and the educational institutions in the agricultural field, the Land Grant Colleges, devote some of their resources to help develop technicians with the experience and training and understanding needed for effective work in an overseas environment, particularly in the more underdeveloped countries which are becoming more and more important to Free World interests.

In the formal educational institutions, of course, the way in which this could be done is the normal one, namely that of developing

courses with credits specifically designed to accomplish this objective. Perhaps they should be largely in the post-graduate classes, but even some "indoctrination" at the under-graduate levels would not, I think be amiss. In the Department of Agriculture, I am less clear. The Department of Agriculture's Graduate School might also consider the establishment of similar courses.

The second suggestion goes hand in hand with the first and it has to do with the kind of technical training that the institutions in the United States, the universities, colleges, departments of government, private businesses, and farmers provide to the foreign nationals we bring to the United States for this purpose. The training needs to accommodate the trainee's capacity to understand, and the use to be made of the training when he returns to his homeland. I know this is not easy. It requires major modifications in the courses of study and in other training programs originally established to instruct U. S. citizens. But we must make the effort if we are effectively to help many other countries, particularly those just achieving their independence, to improve their agriculture.

Summary

I have tried to indicate above some of the complex factors which must be taken into account as we help other countries to improve their agriculture. By and large the United States is new at this game. We have learned much from experience and are still learning. We have been generally successful, although one can well argue that we have not been as successful as we should have been. Since a simple parade of these successes would do little to provoke thinking, I have chosen not to recount in this presentation illustrations of effective work.

SEMINAR

HELPING OTHER COUNTRIES IMPROVE THEIR AGRICULTURE

Participants

Panel: P. V. Cardon, formerly with the Food and Agriculture Organization and USDA Graduate School; Larry H. Simerl, University of Illinois; John W. Johnston, Jr., formerly with ICA Program; C. M. Ferguson, Federal Extension Service, U. S. Department of Agriculture (moderator).

Summary and Background

The seminar discussions emphasized the need for specialized techniques and facilities for training foreign participants in this country, additional training and orientation of Americans going overseas on technical assistance assignments, and increased follow-up with participants after their return to their home country to maximize benefits from their training.

All speakers emphasized the paucity of adequately trained people in many of the participant countries, and the need for an expanded and strengthened training program. It was the consensus that, for the most part, the training should be done in the United States, that



C. M. Ferguson (standing) leads the seminar on "Helping Other Countries Improve Their Agriculture." Seated around the table are John W. Johnston, Jr., Larry H. Simerl, D. A. FitzGerald (afternoon speaker), P. V. Cardon.

it should be for a year or two, and longer in some instances, and that special training devices and facilities are needed to obtain best results.

The discussions indicated that if countries are really to be helped to improve their agriculture, institutions must be created within the countries to enable the people themselves to develop the knowledge, training and facilities to carry out sound and constructive programs.

The need for better orientation and training of Americans going overseas was recognized, especially the need for their being thoroughly informed concerning programs and policies of the United States. It was also brought out that careful studies need to be made of the economic, social, and cultural patterns in cooperating countries if we are to be able to propose realistic programs of lasting benefit. The technical assistance task envisioned the continued joint efforts of U.S. government programs, college and university contracts, private foundations, and church sponsored projects and international organizations, such as FAO. The lessons of the past decade of technical assistance were considered as providing guidelines for an even larger endeavor in the years ahead.

Statements by Panel

Dr. Cardon referred to the two major parts of Dr. FitzGerald's paper. The first part treats briefly the pragmatic and idealistic reasons for U.S. efforts to help other countries in their economic development. The second part delineates the lessons learned by the U.S. in this first decade of foreign technical assistance. Dr. Cardon regretted that these lessons were not learned before the force of circumstance imposed gigantic tasks then largely beyond U.S. experience even though well within U.S. capabilities. But, he said, we have learned that effective performance in this field is in direct proportion to the depth of understanding of people and their ways, and the soundness of plans formulated and prosecuted on their behalf.

Dr. Cardon indicated further that the six considerations listed by Dr. FitzGerald could serve usefully in the formulation and operation of programs of technical assistance generally, whether by ICA, FAO, or other agencies, public or private.

The two greatest lessons learned from our decade of technical assistance, Dr. Cardon said, were "widespread recognition of the basic importance of local institutions to technological progress, and the need for a clearer and more general understanding of people and their ways of life, the problems they confront, the essentials of proposed solutions, the requirement of local adaptation in procedural methods, and the necessary qualifications of persons engaged to carry out projected programs. They constitute the soundest foundation we have ever had for

achieving, in the longer run ahead, the high purpose of technical assistance."

Mr. Johnston said that from what he had observed during his 17 years in Latin America, training is the most outstanding factor relating to how to improve techniques of agriculture in other countries. More training is most essential if we are to accomplish our overall objectives of foreign aid.

He recounted his association with the foreign aid program since its inception, and because of his experience, firmly felt that we will never accomplish the self-help idea unless more of the recipient countries' own people are trained to carry the load. The load rests on the shoulders of the technical people available at the present plus the potential technicians within each country.

Mr. Johnston said: "I know a country that has Point 4, Rockefeller Foundation, UN, OAS, Armour, Kellogg, all trying to help—all giving assistance. These agencies and institutions come in daily contact with people from all walks of life and quite naturally get an excellent opportunity to size up the potential leaders and can help in selecting those that should be included in one or another of the specialized training programs.

"It is realized all the mentioned agencies do have training programs, but there is still a need for more, plus, closer coordination between these agencies. If Point 4, UN, or OAS has restrictive legislation that only permits one or two years training, and the individual warrants more, then a concentrated effort should be made to contact *some other organization or institution* to carry on with the financial burden until such individual is fully prepared and can go back to his country and do the job that is presently being carried on by a U.S. technician.

"In some of the countries of Latin America I have wished *many* times that the university contract had been the reverse of what it is. In other words, do the training, particularly teacher training, in the U.S. at some university, then return the trainee and let him or her adapt what they have learned in the U.S. to their own country's particular conditions? I do not think there would be as much of a language problem with this setup as there exists now with contract people in the various foreign countries."

Mr. Simerl told the seminar that American universities have been slow to recognize the fact that the training of foreign visitors is a permanent activity. "We need to expand our horizons beyond our State lines," he said. "A generation ago an American was not considered well educated unless he had completed some work overseas. That trend has been reversed; consequently, we have large numbers

of foreign visitors wishing to receive training in the United States.

"Oftentimes local programs are not adapted to conditions in underdeveloped countries. It may be," he said, "that we need to develop special curricula for degree and non-degree programs."

Mr. Simerl pointed out that perhaps more of the training of foreign participants should be patterned after that of our graduate research programs in agriculture at most Land-Grant institutions. Participants might spend half their time on their graduate program and the other half with research programs in their professional field and with other interests. Such a program would provide a better balance between applied and basic research. Participants interested in specific phases of work should be concentrated in larger groups on a smaller number of campuses.

In conclusion, Mr. Simerl said: "Some foreign institutions seem to have no clear-cut notion as to just what they hope to obtain from the program. As a result, there has been much delay in deciding what specialists are wanted. The local institutions also need more adequate job descriptions of such staff needs. Perhaps better use could be made of foreign currency, made available through PL 480 funds, for aiding our staff in foreign countries. Inadequate communication among all agencies still is a weakness in the program."

Discussion

Discussion of training aspects of technical assistance dominated the discussion period and was particularly lively. Since a number of USDA and Land-Grant College people are directly involved in foreign training work, the editor decided that many readers would be interested in verbatim questions and answers taken from the transcript of this portion of the seminar.

Dr. FitzGerald: In my paper I was referring primarily to technical assistance provided by the United States. But the large volume of technical assistance provided by other organizations, by international organizations, and by other countries, when added up probably would run the total of technical assistance to \$300 to \$400 million annually, not including a great deal of technical assistance provided in effect by American businesses abroad, who frequently have excellent training programs, although of a somewhat limited character.

One of the devices that we have followed in recent years with mixed success in the technical assistance field has been the use of the American universities in the contract agreement between them and sister or brother institutions overseas. One of the advantages is that the American professors and technicians who go out under a uni-

versity contract help select the trainees that come to the United States and are worked into the local educational institution. This upgrading of the local institution, I think is much greater, by using the university contract than it is by direct hire.

The Technical Training and Cooperation program has now got to a \$150 million size which is large when you recognize that this represents primarily service cost. We have undertaken assembling a staff to take at least a 12-month look at our Point 4 Program in all its aspects to pinpoint any weaknesses, limitations and pitfalls that we have fallen into. We have high hopes that a year or more from now we will have a basis for a pretty vigorous re-examination and perhaps revision of many aspects of our program.

Question: Can poor elementary school facilities be corrected without the provision of more productive employment?

Dr. FitzGerald: Better employment and more productive employment in almost all instances, I am aware of, requires literacy and training. I don't think one comes before the other; they have to go hand in hand.

Question: What ideas do you have on the importance of training U.S. technicians who go abroad?

Mr. Johnston: That to me is one of the most important phases of our work. The U.S. technician that goes out should be well trained in our surplus commodity program, our PL 480 program, our objectives, what we are trying to do, and where we are in our Point 4 Program and what we are trying to do in this individual country. If he is in an isolated area, the farmers of that particular section want to know what our surplus program is; and why we have a surplus. You've got to set down and talk intelligently to them. If you just say, "No, I can't do that, I'm down here to dig a well," and leave, you are going to leave a very bad impression.

Question: What ways can you suggest to attract free world nations into greater international technical assistance participation?

Dr. Cardon: I think that early in some countries the feeling was created in some quarters that maybe we could and maybe we couldn't provide useful technical assistance, so just wait and see. But as they have seen us appreciate more and more the conditions under which they are working and how we have adapted our techniques and the sincerity of our purpose, they have been attracted to the program. To attract more of these countries, I believe that we must think of technical assistance as being not merely a U.S. program. There are now 84 countries with an international program, many of them of a bilateral type. I think that the U.S. bilateral program has done a tre-

mendous job in blazing a trail in many instances, but I believe that the continuing program with other agencies has done as much, perhaps, to help sustain and develop what I consider an increasing favorable attitude on the part of the country.

Question: Considering the heavy U.S. student load in most of our institutions and the participants' varying levels of training or lack of it, the language handicap, and other difficulties, how can we hope to tailor a program diversity that is needed?

Mr. Simerl: I would suspect that we need to develop different kinds of institutions or training programs on different campuses for people with different levels of understanding of the English language and different levels of background training. Maybe we need to make special rules for the admission of foreign students and give them a trial period and then decide after we have had them a while what they are best able to do. Certainly we need some people on a faculty who have primary responsibility for these foreign students. Perhaps we need also to acquaint the State legislators with an understanding of this problem.

Question: To what extent should an American have a well rounded foundation in the principles of sociology, anthropology, and the culture of the country to which he is being assigned?

Mr. Johnston: I think it would assist, if time permits, to give extensive training, but I think it is more important that our technicians going out into other countries should know more about what is going on in his own country before he ventures out.

Question: After the man from abroad has received training in the United States and goes home, how can we encourage his home country to make use of the training he has received?

Dr. FitzGerald: Generally speaking I think it is too late after he has gone back home. We try to get an agreement, before he leaves for his training, both with the government and others concerned, as to how they are going to use this man when he comes back.

Question: What percentage of foreign personnel trained in the United States is lost because of political changes administered at home?

Mr. Johnston: Surprisingly enough, I think the percentage is small. If it is a real dedicated individual coming up for training and the administration changes or a minister changes, he will find a way to get back into some job. And if he is absorbed by private interests, private companies, the job is still being accomplished, we are getting done what we started.

Question: The technical cooperation program is some 10 years old. Do you foresee it lasting as much as 20 additional years?

Mr. Johnston: I feel very strongly that it will continue and that there will be a technical assistance program of some form indefinitely.

Question: What are the advantages of bilateral vs. multilateral technical assistance or vice versa?

Dr. Cardon: In the first place, I think that a multilateral agency such as FAO is able to recruit widely. It can obtain a technical help of high qualification from any country in the world. Another advantage that I have sensed in my direct contact with about 55 different countries is that they really appreciate the fact of membership in an international organization. They felt free to talk to me not as a U.S. citizen, but as a man on *their* staff. They had a feeling of proprietorship in the organization. I think that in a given region hazards to agriculture and food production highlight the importance of across the border cooperation. Also an international agency can undertake some very broad programs of a truly international character, such as the plant disease convention that involved about 70 countries.

Dr. FitzGerald: I not only agree with everything, Dr. Cardon, but I think another quite important advantage in the multilateral organization is that it is able to work more effectively in areas which for one reason or another may be very sensitive from the political point of view. The FAO, WHO, or other multilateral organizations can go into a country and dress it down on its financial management and make it stick in a way which no American could possibly get away with. There are advantages in the bilateral program that we have somewhat more flexibility in availability of supplies and equipment. I don't think that you can possibly conclude that one program is better than the other—they are both important, they both make major contributions. Our effort is to work together and not to compete.

Question: What does the United States, as a country, expect from a foreign training program?

Mr. Johnston: I think that you have to look at our overall national objectives. As long as the United States has made it a part of our foreign policy to help other countries raise their standard of living and to provide technical assistance, etc., the training program comes along as a natural aspect of developing nationals to do this job themselves.

Question: Are we interested in developing markets for our products, or are we interested in defense afforded by the development of underdeveloped countries, or in missionary work formerly done by churches?

Dr. FitzGerald: Well, we actually have a mixed motivation program. I might add we are not taking over the work formerly done by the

missionaries. They are still in business in a big way, and I hope they will remain so. I think there is a great deal of misunderstanding in this development of foreign markets, particularly for agricultural products. Aside from obvious quality control, quality improvement, and market adaptation, I think in the long run market development, particularly for agricultural products abroad, is going to be a function of the economic growth of these countries. Until you can get improvement in per capita gross national product of 3% a year or more, the opportunities for developing markets are, to say the least, minimal. By and large American agriculture interests should be more in the overall economic development of countries.

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